

# **User's Manual**

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# 1 Overview

TreeSize Professional is a powerful and flexible hard disk space manager for Windows. TreeSize Professional will help you to find out which folders are the largest dissipaters on your drives and to recover megabytes of disk space.

TreeSize Professional shows you

- the size,
- allocated space
- wasted space,
- the number of files,
- 3D bar and pie charts,
- the last access date,
- the file owner,
- the NTFS compression rate

and much more information for several folders or drives you choose. TreeSize Professional offers a search for old, big or temporary files as well as the facility to delete these files or to compress and archive them. The application has an intuitive Explorer-like user interface, it is fast, multithreaded, and supports Unicode and scheduled scans. You can print detailed reports, and the Professional Edition can export the collected data to Excel and to an HTML, XML or ASCII file. TreeSize Professional can be started from the context menu of every folder or drive.

For every button and menu item, a short description is displayed in the status bar. Pressing the F1 key will open the context sensitive help.

# 2 Installation

To install TreeSize Professional, execute the setup file and follow the instructions. The minimum requirements are Windows XP. The setup program will copy the necessary files to your hard disk and will create a new program group in the Start Menu. TreeSize Professional may be uninstalled using the Software applet in the Control Panel of Windows. The installation key needed for installing the registered version is printed on the disk label and is also available online in our customer's area.

## **Portable installation**

It is possible to install the Professional Edition as portable version, e.g. on an USB Stick. The settings will then be saved in the install location.

# 3 Quickstart

After the installation TreeSize Professional can be started using the Windows Start menu or the right click menu of a folder or drive. We will now explain the most important elements of the TreeSize Professional main window:

1	😽 TreeSize Professional - Allocated - Drive: System (C:)		
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(1)-	System (C:)		- 🎓 🙆 🎯 🚰 🗣 🖨 🗇 📾 🛃 🖾 💆 🗭
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$\sim$	C:\ Size: 42,176.4 MB Allocated: 42,300.1 MB	Files: 62,54	43 Folders: 12,837 Last Change: 1/21/2010 Last Access: 1/21/2010 Owner: TrustedInstaller
(2)	4 9,879.3 MB Windows	- 4	👂 Chart 🔚 Details 🐹 Extensions 🥵 Users 🧊 Age of Files 🔝 Top 100 Files 🖾 History
$\sim$	4,417.3 MB winsxs 2,102 C MB Sector 22		ATRIASIATENTENTENTENTENTENTENTENTENTENTENTENTENT
	2,103.6 MB System32		
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	378.2 MB Fonts		
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	137.0 MB IME		winsxs
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(9)	89.5 MB Microsoft.NET		Installer -
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	> 38.9 MB Web		
	29.0 MB Globalization		
	17.6 MB Boot		ehome
	17.2 MB servicing		Microsoft.NET
	13.3 MB Media		SoftwareDistribution
	9.3 MB PolicyDefinitions		Help
(10)	N 90 MB Logs	-	inf 🚺
Ce	Name Size Free % Free		Performance
	🛀 🚰 C:\ 39.8 GB 661 MB 2 %		Web
			Globalization
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(11)			Allocated
~			· · · · · · · · · · · · · · · · · · ·
	Free Space: 661 MB (of 39.8 GB) 57,08	Files	4096 Bytes per Cluster (NTFS)

- 1. On this <u>toolbar</u> the user can select which drive or path should be scanned. Press the button with the arrow on the right to start scanning. TreeSize Professional here remembers the last paths that have been used.
- 2. Here the user can get an overview of the currently scanned drive. This and the other toolbars can be turned off in their context menu.
- 3. The Chart page shows a pie or bar <u>chart</u> of the currently selected directory. Use the context to show a toolbar with advanced charting features.
- 4. The "<u>Details" tab</u> shows detailed information about the sub-folders and the files inside the currently selected folder.
- 5. The <u>"Extensions" tab</u> shows the size information grouped by file types. That way you will get an overview what file types take up most of the space.
- 6. The <u>"Users" tab</u> shows the size information grouped by user names. This allows you to see which users use most of the disk space.
- 7. The <u>"File Ages" tab</u> shows when folders have been created.
- 8. The <u>Top 100 files</u> lists the 100 largest files in the scanned directory tree.
- 9. The <u>file system tree</u> of the scanned folder or drive gives you an immediate overview of the size of each folder.
- 10.The <u>drive panel</u> provides an overview of all local and mapped network drives. Additional network drives can be added using the context menu. Double click on a drive to start a scan

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in TreeSize Professional.

11. The status bar informs you about the allocated and free space of the current drive, the file system type, etc.

12. The <u>"History" tab</u> shows, how scan results of a special directory branch have changed through time. This feature allows a dynamic analysis of the patterns of utilization over a longer period of time.

# 4 What's New

## Changes in V5.5.5 (27 Mar 2012)

- Custom File Search: The values for min and max size now also work for directories. This allows you e.g. to easily find folders that do not contain any files by setting the max size to 0 and checking only "Directory" in the Attributes list.
- Bug fix File Search: Some MD5 checksums could be missing in exported files.
- Bug fix: Editing the execution time of an existing scheduled TreeSize task did not work.
- A few minor fixes have been incorporated.

# Changes in V5.5.4 (27 Jan 2012)

- The new <u>command line option</u> /EXPORTDRIVELIST now exports the contents of the <u>drives</u> <u>panel</u> to a text file.
- Bug fix: When selecting "Remove from TreeSize temporarily" in the right click menu of the " <u>Details</u>" list sometimes too many items disappeared from the list.
- Bug fix: Pressing the "Del" key in the "Details" list deleted only the selected files if both files and folders were selected.
- Bug fix: TreeSize Professional now follows <u>Windows DFS shares</u> correctly again and shows their target path in the tooltip window.
- Bug fix: The <u>command line option</u> /FILEAGESCHART no longer produces empty charts.
- Bug fix File Search: Using a wildcard pattern like "C:\Temp\\*.txt" in the <u>Custom File Search</u> now produces the expected result and lists all text files in the directory branch "C:\Temp".
- A few minor fixes have been incorporated.

# Changes in V5.5.3 (24 Oct 2011)

- Bug fix: An occasional repaint problem of the folder dropdown box on the top left of the main application has been fixed.
- Bug fix File Search: "Edit > Check all matching a pattern" now also works correctly for the duplicate search and now considers not only the full path but also the file name. This allows using more simple patterns like "New\*.txt".
- Bug fix File Search: The behavior of the command line option /MOVETO has been improved.
- A few minor fixes have been incorporated.

# Changes in V5.5.2 (10 Aug 2011)

- Bug fix: Saving an XML report for a <u>virtual root folder</u> caused an error, this also applied to the command line options /GROUPSCANS /XML.
- Bug fix File Search: An error was fixed that occurred when merging the permissions for <u>deduplicated files</u>.

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• Bug fix - File Search: A possible error was fixed that could occur after using "Check all but newest" from the right click menu of the Duplicate Files search.

# Changes in V5.5.1 (28 Jul 2011)

- Bug fix: The chart on the "History" tab is now working again for mapped network drives.
- Bug fix: If a [Files] item is deleted using the right click menu, it is now removed from the <u>Directory Tree</u>.
- Bug fix: When performing multiple scans from the command line with multiple /PIECHART command line options, then the exported charts sometimes contained the wrong content.
- Bug fix: Entering paths like \\Server\A\* in the edit field on the top left of the TreeSize Professional window is now working again.
- File Search: The <u>custom file search</u> now allows again a minimum value of "0" for the date fields "Since XX days". This allows to search for files that have been created, changed or accessed today.
- Personal Edition: The menu item for comparing XML reports is now available again.

# Changes in V5.5 (18 Jul 2011)

- The new columns "Inherited Permissions" and "Own Permissions" have been added to the " <u>Details</u>" tab and all export options. The column "Own permissions" simplifies finding folders that do not inherit all their permissions from their parent folder. Both columns are not activated by default, but can be enabled using the context menu of the list header or at "Tools > Options > Columns/Export".
- The new column "Alternate Data Streams" in the Details list shows the size of <u>NTFS alternate</u> data streams in a file.
- The columns "Quota Limit" and "Quota Usage" have been added to the "Users" list. This allows a quick overview about the usage and limit of the Windows built-in quota features from within TreeSize Professional.
- The "File" menu now includes a list of recently scanned paths and recently saved XML reports.
- You can now scan paths like "S:\Users\R\*" or "R:\\*\MyVideos". Only one root folder will be created in this case.
- File Search Move Checked Files: It is now possible to burn the checked files to an optical media.
- File Search Move Checked Files: Because of many customer requests, it is now also possible to copy all checked files to a different location instead of moving them.
- File Search: It is now possible to check or uncheck all search results which are matching a certain pattern using the "Edit" menu.
- File Search Duplicates Files: It is now also possible to search duplicates solely by their file name.
- File Search Duplicates Files: The deduplication feature now has an enhanced dialog. It shows the number of all checked duplicate files and the disk space that will be recovered. You may specify a log file that logs all performed operations in detail. Furthermore you may configure in detail how to handle duplicates that are not located on the same volume.
- File Search Duplicates Files: When deduplicating files using hardlinks now a union set of the original access privileges is applied to the remaining file, so that all users can still access the resulting file.
- File Search Oldest Search: You may now alternatively specify the minimum age of a file in number of days instead of a certain date.
- The saved XML reports now include the owner of each folder in case the file owner statistics was turned on in the <u>Options</u> of TreeSize Professional.

- TreeSize Professional is no longer shown in the context menu of virtual folders like the recycle bin. It is now also available in the background context menu of folders.
- Bug fix: The command line option /SCAN did not work in combination with /EXCEL and /SAVE.
- Bug fix: The command line option /TREEMAP did not work in combination with /NOGUI.
- Bug fix: Right clicking on a very large file could cause the application to freeze for several seconds as this triggered calculation of checksums shown in the "TreeSize" submenu of the right click menu.
- Numerous further improvements and a few minor bug fixes have been incorporated.

# Changes in V5.4.4 (13 Dec 2010)

- Now the language which is chosen in the first step of the installer decides about the language of the user interface, the regional settings of the system are no longer taken into account.
- Exporting Excel files is faster now, especially for a large amount of data (>60.000 rows).
- Bugfix: After clearing the exclude filter at "Tools > Options > <u>Include/Exclude</u>", the necessary rescan is now performed correctly.
- Bugfix File Search: The checkbox "Save only checked items" in the dialog of "Save Results" now has the desired effect of exporting only those items which have been check-marked.
- A few minor fixes and improvements have been incorporated.

# Changes in V5.4.3 (23 Nov 2010)

- The function "Update this branch (Shift+F5)" from the context menu of a folder is now also working for a directory tree loaded from an XML file.
- Bugfix: When a saved XML report of a server is loaded that is currently not reachable, the delays that occur are minimized now.
- Bugfix: A rare error when loading a saved XML report has been fixed.
- Bugfix: If the TreeSize File Search is added to the Explorer context menu using the option at " <u>Tools > Options > Miscellaneous</u>", the correct caption for this menu item is used now.
- Bugfix File Search: The results of the search type "Internet Files" were possibly incomplete.
- A few minor fixes and improvements have been incorporated.

# Changes in V5.4.2 (22 Oct 2010)

- Bugfix: An error when exporting the settings at "Tools > Options > Miscellaneous" has been fixed.
- Bugfix File Search: When moving files, the "Yes to All" button is confirms all further confirmation dialogs of the same type.
- A few minor fixes and improvements have been incorporated.

# Changes in V5.4.1 (06 Oct 2010)

- The default sort order of the "Top 100 Files" list is now again descending by size.
- Improved saving and restoring of the toolbar positions
- File Search: Scrolling in the duplicate list could be slower than in V5.3 if the columns "Creation Date" or "Last Access" were visible.
- Bugfix: On a few systems with Outlook 2003 an error in MSMAPI32.DLL occurred on startup of TreeSize Professional.
- Bugfix: The toolbar button for copying the history chart to the clipboard was always disabled.
- Bugfix: Fixed rare OLE exception ("Not implemented") caused by the code for showing the progress in the Windows task bar. Affected were some Citrix systems and Windows 2008

Server on which TreeSize Professional was started as RemoteApp.

- Bugfix: Removing single points from the "History" tab via the context menu ("Remove this point") could lead to an error.
- A few minor fixes and improvements have been incorporated.

# Changes in V5.4: (21 Sep 2010)

- Paths that are <u>exported to Excel</u> files are now exported as clickable hyperlinks. This allows you to quickly jump to the appropriate path in Windows Explorer.
- The <u>automatic mode for size units</u> ("View" > "Automatic Units") is now also supported for the export to Excel files. Please note that it will be difficult to do calculations based on these values.
- Personal Edition: TreeSize Personal now scans network drives if the computer running TreeSize Personal is not part of a Windows domain and the remote system is not a Windows server. This enables customers of the Personal Edition to scan network drives in their home network, including NAS systems based on Linux and Samba 3.
- All **lists**, including the results lists of the file search, can now be **saved in HTML and RTF** format by choosing the appropriate format in the "Save" dialog.
- All printed lists now include the icons, text formatting and indents.
- <u>Printed reports</u> now show compared scans in red and green, just like on the directory tree, if the option "Use bold Text and Colors for Printed Reports too" is activated in the <u>Options</u> dialog.
- The <u>tree map</u> on the "Charts" tab now not only supports drag operations but also drop operations. Additionally, drag operations with the right mouse button are possible as well. The right click menu of the tree map now offers the possibility for elements like \*.doc to list all files that belong to this element.
- The progress of the currently selected scan is now indicated in the Windows 7 task bar.
- The indicated progress of a scan is now calculated more exactly by using the results of previous scans (if available).
- Options: On the new tab "File Groups" the file groups shown on the "Extensions" tab can now be customized.
- The incremental search, which is started when you type characters in the <u>directory tree</u> on the left, now searches all sub folders, even the ones that are not visible or expanded. This allows you to quickly locate folders by starting to type their first characters.
- A new option (Tools > Options > View) allows you to display folders containing long paths (> 255 characters) in red.
- Drives are now displayed in the directory tree including the volume name, e.g.: C:\ (System)
- The new command line option /SHEETNAME allows you to specify the name of the Excel sheet that will be added when using the <u>/EXCEL</u> command line option. See help for details.
- History: The new option "Purge Old History Values" in the context menu of the "<u>History</u>" tab can be used to permanently remove older values from the chart.
- The small chart on the bottom of the "Extensions" and "Users" tab can now be exported in <u>scheduled tasks</u> as well.
- The Windows defragmenter can now be started from the TreeSize Professional "Tools" menu.
- A new option (Tools > Options > <u>Startup</u>) allows you to always start TreeSize Professional as administrator for Windows 7 and Vista, not just if the appropriate entry from the Windows Start menu has been used.
- If TreeSize Professional is started non-elevated and it encounters a folder which it does not have access to, it now asks the user if TreeSize should be started again with administrative privileges.

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- The Include Filter at "Tools > Options > Include/Exclude > Include" now supports paths and path fragments, too, not only file extensions. A dialog for editing the pattern more comfortably can be opened using the button on the right.
- The shortcut for copying the selected entries of the Details list to the clipboard as text is now Shift+Ctrl+C. Ctrl+C in the "Details" list now copies the selected files or folders to the clipboard, just like the Windows Explorer.
- The shortcuts Alt+Left, Alt+Right and Alt+Up now behave like in Windows 7 Explorer.
- In the Restricted mode, which can be started using the command line switch <u>/RESTRICTED</u>, the Explorer context menu is now available in the directory tree, the Details list and the Top 100 list.
- A new option under "Tools" > "Options" > "<u>Miscellaneous</u>" allows you to add the TreeSize Professional File Search to the Explorer context menu of folders and drives.
- File Search: The <u>Duplicate file search</u> now supports SHA256 check sums. While it is very unlikely that the MD5 hash algorithm produces the same hash value for different files, the SHA256 algorithm further reduces the statistical risk of such hash collisions.
- File Search Custom File search: The tabs of the custom file search that have filters set (= have actual influence on the search result) are now marked by a bold text in their tab.
- File Search: The File Search now decides, in a more intelligent way, if it should match a given pattern against the full path or just against the file name. In previous versions it was difficult to keep certain substring matches out of the search results. Additionally, you can now use quotes around your search pattern and so force a strict matching.
- File Search: It is now possible to search for files that do *not* have a certain attribute set.
- File Search: The export format of the Duplicate files list has been improved: The groups are easier to identify because files are indented now.
- File Search: A new option "Show Time with Date Values" was added to the "<u>View</u>" menu. It allows you to turn on or off the displaying of the time values next to the date values.
- File Search: The right click menu of the drive list on the "<u>Search\_Options</u>" tab now has a feature to import and add paths from a text file.
- Bugfix File Search: If the "Move Checked files" function needed to create a new directory in the root of a drive, it sometimes had the hidden and system attribute set.
- The **support for Windows 2000 has been dropped** because Microsoft dropped it in July 2010. TreeSize Professional V5.3.4, which is compatible with Windows 2000, remains available in our customers area for registered customers with valid maintenance.
- Several minor improvements have been incorporated.

# Changes in V5.3.4: (21 Jan 2010)

- If single files are deleted from the "<u>Details</u>" list, the size in the <u>directory tree</u> will now be updated even if "<u>Automatic Updates</u>" are turned off.
- Bugfix: On systems that are not part of a Windows domain, delays could occur when expanding items in the directory tree or when the information for the <u>long hint text</u> was compiled.
- Bugfix: In the column "Permissions" sometimes usernames were not displayed correctly, instead "S-1-0" was displayed.
- A few minor improvements have been incorporated.

# Changes in V5.3.3: (11 Dec 2009)

• Bugfix - File Search: A long list of duplicate files could contain invalid items in some cases. This caused an error if the list was scrolled to the bottom or if it was exported to a file.

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- Bugfix: "Show Files" in the right click menu of the "Age of Files" chart as well as a double click on one of the bars produced empty result lists on some systems.
- Bugfix File Search: When loading search options from an XML file, the date values were not restored correctly on some systems.

# Changes in V5.3.2: (24 Nov 2009)

- Environment variables can now be used in paths to be scanned, e.g. if they are entered in the directory dropdown box in the top left of TreeSize or passed via command line.
- The function to list files of a user / extension / file age interval now takes the currently set exclude filters into account.
- File Search: The search progress is now visualized in the Windows 7 task bar icon.
- File Search: The Explorer context menu is now also displayed if more than one file is selected, as long as the selected files are on the same drive or share.
- Bugfix: Tools > Options > Include/Exclude > File Types: Multiple patterns separated by blanks were no longer working correctly.
- Bugfix: The exclude filter did not work for patterns with an absolute path. As a consequence, the feature "Remove from TreeSize (permanently)" in the right click menu of the directory tree did not work too.
- Bugfix: The shortcut "Ctrl" + "-" for the feature "Remove from TreeSize (permanently)" did not work.
- Bugfix File Search: It was no longer possible to enter a server name as origin for the search (e.g. \\Server1).
- A few minor bug fixes and improvements have been incorporated.

# Changes in V5.3.1: (15 Oct 2009)

- Bugfix: The regular check for update could crash TreeSize Professional on application start.
- Bugfix: After using "File > Compare With XML Report", folders could appear multiple times in the directory tree.

## Changes in V5.3 (12 Oct 2009)

- TreeSize Professional has passed the "Compatible with Windows 7" logo test.
- Introduced **new toolbar buttons "Back" and "Forward"**. You can use these buttons to navigate like in the Windows Explorer.
- In the directory edit field in the upper left corner of TreeSize Professional it is now possible to enter multiple paths at the same time by separating them using semicolons. Each of these paths may contain wildcards. Example: d:\data\;e:\logfiles\;h:\user\*\
- Top 100 List: Added columns Creation Date (by default visible), Attributes, Version, Permissions (by default not visible)
- Added column "Full User Name" (by default visible) and "User Comment" (by default not visible) on the "Users" page. Use the column header context menu to adjust columns.
- The "Printed Report" and the lists printed using the "Print" button above the "Details" list now also contain the icons.
- Added possibility to export a subbranch of the scanned file system to the right click menu of every folder.
- Under "Tools > Options > Columns / Export" there is a new export type for CSV files now. This way CSV files can now be configured independently from the text export.
- You can now **export** the user **settings** to a file ("Tools > Options > Miscellaneous > Settings") and **import** them later, or provide them to another instance or user of TreeSize Professional. You can also reset the user settings to the factory settings here.
- The drives panel is no longer blocking TreeSize Professional on startup for a while if an unreachable

network path is included in the list.

- Introduced **new menu "Edit"** to the main menu. It provides similar features like the Windows Explorer "Edit" menu and includes: "Cut", "Copy", "Paste", "Select All" and "Invert Selection".
- F5 now only updates the "Details" list if the Details list is focused. Otherwise it will, like before, perform a rescan of the currently selected directory branch.
- Improved progress dialogs when printing or exporting. They showed a wrong progress sometimes.
- Added new command line option /OPTIONS to pass formerly exported user settings to the application. (*Professional edition only*)
- The new command line switch /APPENDTOFILES will make TreeSize Professional to always append its output to existing files when exporting a list in text format. (*Professional edition only*)
- In file names passed on the command line, e.g. for the Excel or XML export, now environment variables can be used. (*Professional edition only*)
- Charts: The colors assigned to the chart are now memorized for the next start. The context menu of the chart has an option to reset the colors to their default values.
- Charts: The bar and pie charts now also display Unicode characters.
- Charts: All charts can now be copied, saved or printed through their right click menu.
- Charts: Introduced new buttons in the toolbar of the "History" and "Age of Files" tab to (de)activate the gradient, patterns and hint marks.
- Charts: In the right click menu of the pie chart you can now define the threshold for items to be merged in the "Others" slice.
- Charts: You can now zoom the active chart by using the mouse wheel while the "Ctrl" key is pressed.
- Charts: Saving to a PNG file is now supported.
- Charts: You can now scroll the treemap by keeping the space bar pressed while dragging the treemap using the left mouse button, similar to imaging software (e.g. Photoshop).
- A new feature "Manage Scheduled Tasks" has been added to the "Tools" menu of the main application and the File Search. It allows to edit or manage previously created TreeSize tasks. (*Professional edition only*)
- Schedule TreeSize Tasks: Added "Execute this Task" to the right click menu of the "All Tasks" list and the box showing the current command line. (*Professional edition only*)
- Schedule TreeSize Tasks: Added the new functions "Activate Task" and "Deactivate Task" to the context menu of the "All Tasks" page. This state is now also shown by the icon of each task in the list. (*Professional edition only*)
- File Search: Use the new option "Tools > Schedule Current Search Options" to open the TreeSize Schedule Task dialog with the currently configured search settings. (*Professional edition only*)
- File Search Duplicate Files Search: Introduced new "**Deduplicate Checked**" button on the right side of the file search window. This button replaces all checked duplicates with links to the same file. If the files are on the same partition, then all files will be hardlinks to the same content. If creation of a hardlink is not possible, a symbolic link is used under Windows Vista and later. If this is not possible too, a Windows shortcut will be created instead as fallback.
- File Search: Added column "Author" to the result lists which shows the author included in most MS Office files.
- File Search Move Checked Files: We enhanced the option "Leave shortcut at original location", so that you can now decide to leave a (hard) link instead of a Windows shortcut.
- File Search Move Checked Files: Introduced new option "Automatically rename existing files". If this option is activated, files will be automatically renamed if a file with the same name already exists in the destination.
- File Search Move Checked Files: We introduced a new option "Preserve directory structure". This option
  is activated by default, because the directory structure was preserved in former versions of TreeSize
  Professional. You can now deactivate this option to move files directly to the chosen destination. Existing
  files located in the destination will be renamed (e.g.: "..\file.name" -> "..\file.bak0.name") if the option
  "Automatically rename existing files" is activated.
- File Search Move Checked Files: When moving files from one drive to another, the creation date is now preserved.
- File Search Custom Search: You can now **search for folders** by checking the "Directory" attribute on the "Size/Attributes" tab.

- File Search Custom Search: You can now search for files and folders having the attribute for Reparse Points / Mountpoints set.
- File Search: The command line options /SIZEUNIT and /NOUNITS are now also supported in the File Search. (*Professional edition only*)
- File Search: The /FILTER command line option no longer sets the patterns for the temporary file search, it now sets the patterns of the custom file search and allows an easy file search for certain file types or patterns. (*Professional edition only*)
- Bugfix: In the right click menu the "Open" command for folders ("Open containing folder" for files) did not work on 64Bit Windows systems.
- Bugfix: File Search: When using the "Move Checked Files" function in combination with the "Preserve permissions of the original file" option, in rare cases an error could occur.
- Bugfix: When editing the scheduled time or day or trigger type (once, daily, weekly) of an existing task in the "Schedule TreeSize Task" dialog ("Tools > Schedule TreeSize Task"), this change was not stored.
- Bugfix: The command line option /TREEMAP was not working in combination with /NOGUI.
- Bugfix: When terminating a duplicate file search with MD5 checksums before it was finished, the result list could incorrectly include some entries that were not checked for equal file content.
- Many further enhancements and a few minor bug fixes have been incorporated.

### Changes in V5.2.3 (31 Mar 2009)

- The command line parameters /USERSLIST, /EXTENSIONSLIST and /TOPFILESLIST now support writing to Excel files.
- File Search: While calculating MD5 checksums, the duplicate file search now shows the number of remaining files in the status bar.
- File Search: The "Duplicate Files" result list now shows the number of files and their summarized size in the status bar, and no longer the number and size of file groups.
- File Search: If more than one file is selected, the number and size of the selected files is shown in the status bar.
- Bugfix: File Search: The duplicate file search occasionally locked when identifying duplicate files using MD5 checksums.
- Bugfix: File Search: A problem has been fixed when using the "Move Checked" function for complete folders that were moved to a ZIP-File.
- Bugfix: If a user defined cluster size was reverted to "Original" in the "Options" dialog, this was not applied to current scans even if a rescan was performed.
- Bugfix: A problem with the view of the bar chart when it was displaying many folders has been fixed.
- A few minor bug fixes and improvements have been incorporated.

## Changes in V5.2.2 (17 Feb 2009)

- Now the shadow of the pie chart is deactivated as well if the gradient in the background of the chart is deactivated
- Bugfix: The total and free space was no longer shown for UNC paths in the drives panel.
- Bugfix: The file extensions and users statistics was no longer working for virtual root folders
- Bugfix: If a single file was dragged from the "Details" list to the directory tree, an error could occur.
- Bugfix: When scrolling in the bar chart that had a lot of elements, the chart was corrupted.
- Bugfix: On systems that had the Windows printer spooler service not running an error message occurred at the startup of TreeSize.
- Bugfix: Deactivating the statistics for "Age of Files" in the Options dialog did not persist when TreeSize was started again.
- Bugfix: The option "Include only files created in the past XX days" did also check the creation date of folders in V5.2 and therefore returned unexpected results.
- A few minor bug fixes and improvements have been incorporated

## Changes in V5.2 (04 Feb 2009)

- File Search: The <u>"Move Checked Files" feature</u> is now able to handle paths of more than 255 characters and optionally is able to preserve the permissions of the moved files.
- File Search: The "Move Checked Files" feature as well as the /MOVETO command line option

(Professional Edition only) now allow to **pass the checked files to any executable file** as parameter. This offers system administrators a lot of possibilities to manually and automatically process the search results of a TreeSize Professional File Search.

- File Search: The **search results can now be saved to a native Excel** file. If multiple result lists are saved, each list will be placed on a separate sheet.
- File Search: With a new option on the "Move Checked Files" dialog you can now **automatically remove empty parent directories** that are left over after moving / deleting the checked files.
- File Search: In the list of search patterns of the <u>"Custom Search" type</u> it is now possible to **use patterns that include fragments of a path**, e.g.: "C:\Windows\\*\\*.exe" or "\*\Temp\\*.old"
- File Search: The ZIP files created by the <u>"Move Checked Files" feature</u> are now able to **store Unicode file and folder names in the ZIP file**. ZIP files containing Unicode paths can only be unzipped properly by Unicode compatible ZIP tools like WinRar or WinZip.
- File Search: It is now also possible to start the File Search with Full administrative privileges from the Windows "Start" menu and the "Tools" menu of TreeSize Professional.
- File Search: In the <u>"File" menu</u> it is now possible to print a result list or to copy its contents to the clipboard. Use the right click menu of the lists to copy only the selected items.
- File Search: It is now possible to copy the contents of the <u>drive list</u> to the clipboard using its right click menu.
- File Search: The /DATE <u>command line parameter</u> is now also supported for the file search. This way you can automatically add the current date and time to file names specified for the /SAVE parameter or the / MOVETO parameter with a ZIP file. /DATE will change all file names that appear after its occurrence on the command line.
- The **new command line options /NOHEADERS and /NOUNITS** allow to omit the headers and units from exported files, which simplifies getting plain data for later postprocessing.
- A new option allows to **exclude files that are marked as Offline**. Offline files are often not physically present on the disk or are only cached temporarily on the local disk.
- The **new command line option /LISTSEPARATOR** allows to define the separator that is used when exporting text files.
- The new **command line parameter /EXPORTDRIVELIST** has been added, which saves the contents of the <u>drives panel</u> to a file.
- Now the **Excel 2007 format** (file extension XLSX) is supported by TreeSize Professional. This enables you to export Excel files with more than 65,000 rows.
- All **Excel files** saved by TreeSize Professional now have **numbers and units separated**, which simplifies performing calculations with size values. When saving the <u>"Details" list</u> to an Excel file now only the selected items will be saved if more than one item is selected.
- All pattern editors (e.g. View > Options > Include/Exclude, the custom file search, etc.) now have checkboxes in front of their patterns. This allows to deactivate certain patterns temporarily without the need to delete them.
- You can now choose to **install** the Professional Edition **as portable version**, **e.g. on an USB stick**. The settings are stored in the application path in this case.
- TreeSize Professional now stores the user settings in an XML file in the user's profile.
- Treemap: Added OLE drag support to the treemap chart. Drop support will follow in the next version. This allows dragging folders from the treemap to other locations.
- Treemap: Ctrl + und Ctrl can now be used to zoom the treemap. The cursor keys, Home, End, PgUp and PgDown can be used to scroll the zoomed chart.
- Added a context menu item that allows to copy the underlying data from the "Age of Files" chart to the clipboard as text.
- Ctrl+X now executes the Windows Explorer "Cut" operation in the <u>directory tree</u> and the "Details" list. The keyboard shortcut for "Automatic Units" has been reassigned to Ctrl+U.
- When saving a scan to an XML file, the XML stylesheet is now copied next to the exported XML file and is
  referenced using a relative path. This simplifies using the XML files on systems not having TreeSize
  Professional installed.
- Several minor improvements and bugfixes on the treemap, the bar and the pie charts.
- The memory consumption for storing the file types and the user statistics has been reduced.
- Bugfix: In the "Duplicate Files" search, when checking all selected items using the context menu (if file

group items get selected as well) the check state of the group items was set too, which resulted in an error when using the "Move Checked Files" function.

- Bugfix: Fixed a memory leak that occurred on Windows Vista when scanning with the option "Track NTFS Alternate Data Streams and Hardlinks" activated.
- Bugfix: It is now also possible to pass domains and servers like \\domain or \\server at the command line. Previously this worked in the user interface but caused an error message at the command line.
- Many further enhancements and a few minor bug fixes have been incorporated.

### Changes in V5.1.2 (21 Jul 2008)

- All lists now provide a new button in their toolbar that allows to save their contents to an Excel file.
- Added possibility to export the tree map and the file ages chart in the "Schedule TreeSize Task" dialog. Here a new function "Save to Batch File" has also been added to the context menu of the text field containing the full command line.
- Retrieving the file version of EXE, DLL and similar binary files no longer changes their last access date.
- The context sensitive help via F1 key now also works correctly under Windows Vista.
- File Search: It is now possible to search for files whose path is longer than a certain number of characters.

This allows to find paths longer than 255 characters which make problems e.g. in the Windows Explorer.

- File Search: A selected "Since" interval on the "Date" tab of the Custom File Search is now saved for the next start and to XML files (File > Save Search Options). Previously it was only saved implicitly as lower and upper border of the date interval.
- Bugfix: The "Since" date intervals were not working as expected if the negated date filter "Not Changed", "Not Access" or "Not Created" were selected.
- Bugfix: The date picker controls of the Custom File Search did not always report the state of their integrated checkbox correctly. This could lead to files missing in the search results.

### Changes in V5.1.1 (10 Apr 2008)

- TreeSize is now able to **handle paths with more than 255 characters** when searching or scanning the disk.
- TreeSize now applies NTFS compression and removes it from files that are marked as readonly.
- The compatibility with 64Bit systems has been improved.
- The treemap chart is drawn much faster now for large file system trees.
- File Search: When saving a result list, now the visibility and order of the columns is taken into account.
- File Search: When performing a move operation with the option "Create Shortcut ..." activated, now a description is added to each shortcut that contains the destination path, the responsible user and the date of the move operation.
- A few minor improvements and bug fixes have been incorporated

## Changes in V5.1 (04 Mar 2008)

- Many improvements for the new tree map:
- If a folder has no subfolders and file extensions statistics was activated during the scan, the file types are now shown as subitems in the tree map.
- Some graphical changes result in an improved appearance of the hierarchy.
- A legend for the colors has been added.
- It is now possible to zoom and scroll the chart in order to see more details.
- Improvements in multithreading makes scans up to two times faster.
- The Explorer context menu is now available as a submenu in the charts and the root folder of a scan.
- When exporting the data to a file, the save dialog now has a checkbox that lets you decide whether or not the file should be opened after saving.
- When saving the extensions statistics to a text file, you now have a checkbox in the save dialog that allows you to save the expanded groups only, just as you see it on the screen.
- The users and extensions statistics now allow to select multiple items, which is useful if you want to export / print them partially only.

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- The **context sensitive help has been improved**. Pressing F1 should now always lead to the correct chapter in the help file.
- A new column has been added that shows the error message if a folder could not be scanned. This is useful in particular for scheduled scan that export their results to an Excel, HTML or Text File (Professional Edition only)
- If the Mixed Mode for sizes is turned on, the charts will now also use an appropriate size unit for displaying size values.
- It is now possible to delete single values from the history chart using the right click menu.
- Some other minor bug fixes and improvements have been incorporated.

### File Search:

- Added new columns to the result lists that show the attributes of the files, the version number of binary files, the permissions and the creation date. Some of the new columns are by default turned off and can be turned on using the "View" menu.
- The "Move To" dialog of the File Search now has an option to create shortcuts for moved files at their original location that point to their new location.
- Added possibility to search for files with <u>NTFS alternate data streams</u> in the custom file search (tab "Attributes"). If this search is active and alternate data streams are found, their sizes are added to the file size and in the column "Attributes" a "\*" is added to the attributes. Checking for alternate data streams is slow and requires read access to the files that should be checked.

#### Changes in V5.0 (23 Nov 2007)

- It is now possible to group scans under a virtual root folder. This virtual root folder shows a summary of all scans that are part of this group. This way you can merge different scans together e.g. for printing or exporting. You can access this feature through the context menu of a root folder or through the <u>"Tools"</u> menu.
- A new kind of chart called <u>treemap</u> has been added. It shows a hierarchical view of the file system. In this treemap chart each folder is shown as a rectangle with its subfolders inside, again as rectangles.
- The list on the "<u>Extensions</u>" tab can now be grouped by file types like "Audio Files", "Video Files", "System Files", etc. This feature can be turned on or off by a new toolbar button.
- The tabs "<u>Extensions</u>", "<u>Users</u>" and "<u>File Ages</u>" now have a feature "List Files" that generates a list of files of the selected item.
- The selected items in the various file and directory lists of TreeSize now show the selection using a style similar to Windows Vista. This makes colored text and the small embedded charts easier to read.
- The <u>TreeSize column for the Windows Explorer</u> is now also supported on 64Bit systems. The <u>.NET</u> <u>Framework 2.0</u> is required on 64Bit systems for the column to work. Unfortunately a Microsoft employee confirmed that such an additional Explorer column won't be possible under Windows Vista.
- The number of decimals can now be set in the <u>View menu</u> instead of the "Options" dialog.
- The gradient colors of the optional indicator bars in the tree can now be chosen in the "Options" dialog.
- In the <u>Options dialog</u> you can now change the maximum number of threads that TreeSize Professional creates for each scan. Like before TreeSize Professional will still adjust the number of threads to the current system load and so often create less threads than the maximum number.
- In the Options it is now possible to customize the intervals that are used to generate the chart on the <u>"File Ages" tab.</u>
- TreeSize Professional has a new option that allows taking hard links and alternate data streams into account when calculating disk space, which produces more accurate results. However this makes it necessary to open the files and therefore slows down a scan.
- The <u>"View" menu</u> now allows switching to plain Byte values.
- The Excel, Text and HTML <u>export options</u> now allow to specify whether or not units like "KB", "MB" or "%" should be added to exported values. By omitting units the thousands separators will also be omitted, which simplifies further processing of exported values. This replaces the former option File / Export / Use plain numbers.
- The <u>command line options</u> /FILEAGESCHART and /HISTORYCHART have been added. They allow to save the charts on the "History" and the "File Ages" chart.
- The new command line option /TOPFILESLIST allows exporting the top 100 files list.

- The columns of the <u>"Copy list of files</u>" feature are now determined by the settings for the "Text Export" in the <u>"Options" dialog</u> of TreeSize
- The executable has been renamed to "TreeSize.exe".
- The support for Windows 98 and ME has been dropped. Registered customers are still able to download the Windows 98/ME compatible TreeSize V4 from our customers area.
- New application icon.

### File Search:

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- An additional search type "<u>Custom Search</u>" has been added. This search type allows you to freely define and combine search criteria like file name, date, size, attributes and owner. The results can be printed or exported like you are used from the other available search types.
- Now <u>entire servers</u>, <u>entire domains or even your entire network</u> can be searched. TreeSize automatically browses for PCs and all shares on them (including hidden shares) and performs the search on all shares that it finds.
- Improved multithreading support, especially for the MD5 checksum calculation, which should produce results faster on multi-core machines.
- It is now possible to export and import the results as simple paths only (DIR /B /S format). This simplifies post-processing of TreeSize results and allows to import lists of paths in TreeSize.
- It is now possible to pass an XML file to the TreeSize File Search on the <u>command line</u>, which contains previously saved search options. This simplifies scheduled scans with predefined search options.
- The Move operation now optionally logs the performed operations to a log file.
- The result lists do now work as a source for drag and drop operations.
- A new feature "Check all but Newest" has been added to the context menu of the duplicate file search results.
- A new feature in the context menu of the duplicate file search allows to replace duplicate files with hard links. This way all the duplicate files remain at their position, but only one file occupies disk space.

### Changes in V4.3.2:

- On 64Bit Windows systems TreeSize now turns off file system redirection for its threads. The file system redirection hides some system folders in the Windows directory from 32Bit processes.
- Bugfix: The TreeSize File Search Option "Exclude files that have changed in the past XX hours" did not consider the local time zone.
- Bugfix: The Duplicate File Search with MD5 checksums did not include readonly files.

## Changes in V4.3.1:

- If the "Go to Parent Folder" button is hit and the currently selected folder is the top node but not a drive, TreeSize now asks if it should scan the parent folder.
- Bugfix: Some of the initial values in Tools Options Columns/Export were wrong.
- File Search: The "Save Result" function now asks if it should overwrite an existing file, or append to it.
- File Search: The "Save List" feature now creates Unicode text files.
- File Search: For the duplicate file search the comparison of the content of large files with and without MD5 checksum has been improved.
- Bugfix: The TreeSize File Search of the Personal edition did not restore the selected paths on the next start
- Some minor improvements have been incorporated.

### Changes in V4.3:

- A simple history function has been added to TreeSize. Whenever a path is scanned, TreeSize saves the size of this path (but not their subpaths) and displays the size development of this path or drive in a chart on the new "History" tab.
- XML Compare: You can now also compare two different directory structures. If the paths do not match, you will be asked if you want to proceed.
- File Search: The duplicate file search now optionally compares files based on the MD5 checksum of their content. This makes it possible to find true duplicate files that differ in their name or last change date. The drawback is that the calculation of the MD5 checksum takes longer than the comparison of name, date and size.

- File Search: The right click menu of a file group in the result list of "Duplicate Files" now offers the possibility to compare the files of a group byte by byte and remove those that are not equal.
- File Search: All Options on the "View Options" tab have been moved to the new "View" menu. So these options are available on all tabs now, without the need of changing to the old "View Options" tab.
- File Search: For each item a long tooltip is now shown that contains detailed information on the file.
- File Search: For folders matching \$NTUninstall\*\$, that are listed by default in temporary file search, their folder size is shown now.
- File Search: These items have been added to the main menu: Tools / Empty Recycle Bin, Help / FAQ, Help / Check for Update, Help / About.
- File Search: A new option allows to include cookies with the Temporary Internet Files.
- File Search: When files are moved, their path is new prefixed with their drive letter. This makes it easier to restore the moved files again, if multiple drives have been searched.
- Bugfix: The File Search sometimes mixed up file paths when moving files.
- Bugfix: Fixed error that occurred under Windows Vista when someone logged into an existing session using Remote Desktop with TreeSize already on the screen.

#### Changes in V4.2.2:

• Bugfix: When displaying the results in the TreeSize File Search, occasionally an error message occurred.

#### Changes in V4.2.1:

- Bugfix: Sometimes a non critical error occurred when a folder was deleted using the right click menu.
- File Search: A check box was added to the Duplicate Files search that allows to control whether or not the exclude filter should be used.
- File Search: The exclude filter now accepts the wildcards '\*' and '?'.
- Bugfix: The Duplicate Files Search, did sometimes leave out some duplicate files. Other duplicate files were split into two groups because their time stamps were slightly different.
- XML import: The error handling and user aborting within the XML import has been improved.
- Some other minor bug fixes and improvements have been incorporated.

#### Changes in V4.2:

- In the Options dialog (Tools / Options / Scan) you may now choose the priority for the scan and search threads. You may reduce their priority up to idle (use only unused CPU time), which allows you to run a scan with TreeSize without any impact on your PC or server.
- The toolbar of the Top 100 Files List now contains a Delete button.
- The style sheet treesize.xsl for XML files has been revised:
  - It now works under Windows Vista with Internet Explorer 7.
  - Formatting and performance have been improved.
- Errors that occurred during the scan are now indicated by a small exclamation mark in front of the folder name.
- If the option "Follow mount points and symbolic links" is turned on, then TreeSize follows only links that
  point outside the scanned directory tree. This prevents circular references and folders from being counted
  twice. The link target is now also shown in the long tooltip of the directory tree.
- In the background of the directory tree a gradient now is shown for each folder that indicates its size in relation to the entire scanned file system tree. We hope you will like this new visualization of the folder size. If not, you may switch it off in the Options dialog.
- The context menu of the file extensions and user statistics now have a menu item that allows to copy a list of files of the selected file type / user to the clipboard.
- The user statistics now use a caching mechanism which significantly increases the performance of a scan with the users statistics activated and also reduces the traffic to the Windows domain controllers.
- The new command line option /UNITTYPE allows to set the unit (KB, MB, GB) that should be used for displaying size values. For detailed information please see the help file.
- The small arrow indicating symbolic links and reparse points is now also shown in the Details list. System and hidden folders are now shown "ghosted" like in the Windows Explorer.
- The TreeSize File Search can now be started from the context menu of any folder in the directory tree.
- File Search: A new search type allows you to search for duplicate files. Currently files with the same

name, size and change date will be listed. This feature will be further improved in the next release.

- File Search: It is now possible to save and load the options of the File Search to/from an XML file.
- File Search: The cache files of the Opera browser are now also found by the search type "Internet Files".
- File Search: The temporary file search now has an option that lists all files in the "Recent" folder of the user profile. This option is turned on by default. Although Windows shows only the last 15 entries in the "Recent Documents" folder, it keeps shortcuts to all files ever opened in the "Recent" folder which are quite useless.
- File Search: The size and the number of checked files is now displayed in the status bar.
- File Search: The Save dialog now has an option to save all result lists (instead of the active one only), as well as an option to save the checked files only.
- File Search: The new command line option /MOVETO replaces /MOVETOZIP and allows, in addition to a ZIP file, a folder path or the Recycle Bin as destination to which the files will be moved. For detailed information please see the help file.
- File Search: If "Add To Exclude List" is selected from the context menu, all matching search results are now immediately removed from the result lists.
- File Search: In the View Options a new setting allows to adjust, if the compressed size or the normal size should be displayed for compressed files.
- The support for Windows NT4 has been dropped.

### Changes in V4.1.1:

- The menu item "Remove from TreeSize (temporarily)" is now also present in the context menu of the Details list, which allows multiple items to be removed at the same time.
- Errors that occurred during a scan are now saved in the XML-Reports for each folder.
- If the selected node is deleted in the directory tree, the next or parent folder is now selected automatically.
- A new option on the "View" tab of the Options dialog allows you to decide that icons should be determined based on the file extension only. This is much faster, especially on network drives, because Window opens many files to see if there are any icons inside. By default this option is turned on.
- The "File Ages" Chart can now be printed, copied or saved using the context menu or a new toolbar.
- Under Windows Vista an additional start menu item is created that runs TreeSize as administrator.
- A new item in the Tools menu allows you to start TreeSize again as Administrator under Windows XP and Vista.
- The File Search now uses the setting of the Options dialog "Follow mount points and symbolic links" from the main module when recursing through the file system. It is recommended to keep this option turned off under Windows Vista, because Vista makes excessive use of symbolic links, which produces a lot of duplicate results.
- The command line Switch /SEARCH:Start now by default checks all items in the result list of the File Search.
- Some other minor bug fixes and improvements have been incorporated.

### Changes in V4.1:

- Multithreaded scanning has been improved which makes especially network scans up to two times faster.
- A new tab "File Ages" has been added to the right pane. It shows the distribution of the file ages for each directory.
- The Extensions, Users and Top 100 lists as well as the result list of the File Search now have a right click menu for their column headers which allows to show or hide individual columns. Columns can be rearranged using drag&drop. These settings are saved when TreeSize is closed and are restored on the next start.
- The list of file types on the tab "Extensions" now fills up faster.
- The Details tab now also has a toolbar. It can be turned off using the Toolbar submenu in the View menu.
- Folders that could not be scanned due to an error are now shown with a small exclamation mark in the directory tree. The error message is added to the tooltip of this folder.
- A new option allows to decide if date and time should be shown for the last access, last modified and the

creation date, or only the date.

- The Tools menu now has a menu item that opens the configuration dialog for the Windows System Restore. The Windows System Restore by default uses 10-15% of every hard disk drive. A good source for freeing disk space is the reduction of this space reserved for the System Restore.
- The unit and the decimals of the TreeSize column for the Windows Explorer can now be configured in the Options of TreeSize Pro on the new tab "Shell Extensions". Furthermore the Explorer extension can now be fully turned off here.
- The context menu item "Find deepest nesting" is now not only available in the context menu of the root folder but also in the context menu of the sub-folders.
- The drive panel now uses a different color to show the free space as the Details view uses in the column "% of Parent".
- It is now possible to copy the content of the drive panel to the clipboard in a CSV-compatible format.
- TreeSize is now compatible with Windows Vista. The Vista Explorer however lacks the interface for
  extending it with additional columns, so the TreeSize column is currently not available for the Windows
  Vista Explorer.
- File Search: The right-click menu now allows applying the NTFS compression to the selected files in a result list.
- File Search: The visibility of columns in the result lists can now be adjusted on the View Options tab.
- File Search: Compressed files are now shown in a different color, just like in the main application. For compressed files, their compressed size is now shown instead of the uncompressed size.
- File Search: The result list of the temporary file search now shows the reason why a file or folder was added to the list (e.g. the matching pattern, because it is a link with an invalid target etc.)
- File Search: Drives removed from the drive list window now stay excluded when the application is started the next time.
- Bugfix: The selected item of the tree in the main windows was not always drawn correctly.
- Bugfix: The File search module sometimes overwrote settings of the main module if both modules were running and the File Search module was terminated after the main module.
- Bugfix: Removing a currently scanned folder temporarily from TreeSize occasionally resulted in an error.

## Changes in V4.0.2:

- The Scan Include and Exclude patterns (View > Options > Include/Exclude) are now also Unicode enabled.
- Bugfix: Loading XML Reports that contained foreign language characters occasionally caused errors.
- Bugfix: A combination of the two command line parameters /OPEN and /EXCEL did only open the XML file, but did not start the Excel export.
- Bugfix: Double clicking on a file in the chart now opens the file also in a folder with no sub-folders.
- Several minor bug fixes and improvements have been incorporated.

### Changes in V4.0.1:

- Bugfix: Adding an UNC Path to the list of drives in the TreeSize File Search failed with an error messages.
- Bugfix: Toggling the sort order for the first column in the extensions and users list didn't work.
- Bugfix: Opening certain XML reports failed with an error due to an internal overflow.
- Some minor bugfixes and improvements have been incorporated.

### Changes in V4.0:

- TreeSize now scans a file system branch with multiple threads. The number of threads that are used is adjusted automatically dependant on the system load. Because of the latency of hard disks and network drives, this new feature drastically reduces the time necessary for scanning a file system branch.
- In the new dialog "Schedule Tasks" (Tools / Schedule Tasks) you can now add customized TreeSize Tasks to the Windows Scheduled Tasks.
- The XML import, export and compare have been improved. All XML operations are much faster now and use considerably less memory. The size of the XML-files has been reduced as well.
- The tree control was replaced with a faster one, which increases the performance of a scan and expand operations in the file system tree.

- The tree now shows large hint windows that include detailed information about each node. This feature can be turned in the Options.
- Most parts of TreeSize are now Unicode enabled under Windows NT/2000/XP/2003. Windows 98/ME are still supported, but with limited Unicode capabilities.
- The Options dialog now has a check box, that let's you decide, whether or not TreeSize should appear in the Explorer context menu of Folders for the current user.
- A new drive list box in the bottom left corner provides a quick information about the size and the free space of the local drives. Additional remote drives can be added using the context menu. Double clicking on a file starts a scan in TreeSize.
- The top 100 largest files of the scanned path are now shown on an additional tab on the right pane.
- Added support for file system Drag&Drop operations in the main window of TreeSize.
- The HTML export is now UTF8-encoded and exports Unicode folder names correctly.
- The extensions statistics now shows the Windows description and the corresponding icon for each file type.
- In the Options you can now define what TreeSize should do when it starts without a path to scan. It may scan a list of fix paths, it may scan the paths that were active the last time it was used, or it may simply do nothing, which is the default behaviour.
- Two new columns have been added that show the MS Office author and the MS Office last change date. These values get extracted from all MS Office files.
- The context menu of the tree now allows to create a new folder. The shortcut for this operation is Ctrl+N.
- All percent values do now have a bar chart beneath them that indicates the percent value.
- It is now possible to compress and decompress files and entire folders with NTFS compression using the context menu of TreeSize. The values inside TreeSize will be updated on-the-fly.
- A style sheet can now be used with exported HTML files. The style sheet file can be specified under View / Options / Export / HTML.
- The width of the columns in the printed reports can now be adjusted under View / Options / Columns / Printed Report.
- A scan that has been opened and compared through command line options, can now again be exported through a command line option like /XML or /EXCEL.
- A new menu item in the Help menu allows to check, if a newer version of TreeSize is available.
- Several minor improvements have been added as well.

### File Search:

- The TreeSize File Search now uses multiple threads per drive which reduces the time that is needed for scanning a drive.
- The list controls have been replaced with faster ones, which reduces the time needed during the scan as well as the time needed for move operations especially for a large number of results.
- The selected items in a list can now be copied to the clipboard using the context menu.
- The TreeSize File search does now fully support Unicode file and folder names. The speed and reliability of the "Move To" feature has been significantly improved.
- The Move-To-Zip feature and the "Save Results" button now have a progress indicator.
- The querying of the file owners can now be turned off in the View Options if not needed. Querying the file owner is a slow operation under Windows.

# 5 Tips & Annotations

- Especially scans of larger network drives may take a long time. With the Professional Edition you may perform such scans overnight using <u>Scheduled Scans</u> and save the results to a XML file which can be loaded again later.
- The **last access date** is the day when a file was used the last time; e.g. when a program was executed, a DLL was loaded or a bitmap was shown the last time. So if a file has not been accessed for a long time, it may probably not be needed on your system. This is a great

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possibility to recognize and remove unused files from your Windows and System directory. The last access date that TreeSize Professional shows for a folder is the latest last access date of all files in the folder's directory branch.

- Use the <u>TreeSize File Search</u> to find obsolete files on your hard drives.
- In the main windows TreeSize Professional supports drag&drop file system operations.
- All folders that are visible in the directory tree on the left will also appear in the <u>printed report</u> or the <u>exported file</u>. Alternatively, you can set in the <u>Options</u> of TreeSize Professional to always print or export all folders of the current directory tree.
- The *Filter* and *User defined cluster size* settings in the <u>Options</u> are not saved in order to avoid wrong values when using TreeSize Professional the next time.
- You can use the <u>CD-ROM view</u> to determine how much space a directory tree would occupy on a CD or DVD.
- You can use wildcards in the paths to scan and so even scan paths like "S:\Users\R\*" or "R: \\*\MyVideos".
- You can scan all shared drives in a domain by entering the domain name in the drive combo box.
- TreeSize Professional ships with an XSLT file that formats the data inside the XML file for output in a browser that supports XSLT processing.
- For continuous analyzing of disk usage on large servers we recommend our product *SpaceObServer*. It collects the data using a background system service and stores it in a SQL database. It uses less RAM than TreeSize Professional, and the reporting capabilities are more flexible because it is built on a database. More information is available at <u>http://www.jam-software.com/spaceobserver/</u>

# 6 TreeSize Column for Explorer

TreeSize Professional ships with a shell extension that adds an additional column to the Windows Explorer. It shows the size not only for files but also for folders. This feature is intended for a quick overview. The new column can be activated using Choose Columns/Details in the View menu of the Windows Explorer or through the context menu of the column headers of the Windows Explorer. If you would like to enable this column in the Windows Explorer for all folders, then you have to configure this in the Folder Options of the Windows Explorer using the button Apply to All Folders. This column requires Windows XP/2003 and can be configured or fully turned off in the <u>Options</u> dialog. On 64Bit Windows systems, the .Net framework 2.0 or higher is required.

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Unfortunately it is not possible to provide such an extension for the Explorer of Windows Vista or higher, because Microsoft has removed the used interface from this version of Windows. Microsoft has officially confirmed that a similar extension of the Explorer is not possible under Windows Vista or higher.

Note: You have to choose Install TreeSize column for Windows Explorer within the TreeSize Installation. Otherwise the TreeSize column will not be available.

# 7 Wasted Space

The wasted space is the amount of space in clusters on your hard disk that are not entirely filled. Keep the following formula in mind: *size* + *wasted space* = *allocated space*. The file system FAT32 may have very large cluster sizes, depending on the partition size.

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FAT32					
Partition Size	<b>Default Cluster Size</b>				
01 - 08 GB	4 KB				
08 - 16 GB	8 KB				
16 - 32 GB	16 KB				
>32 GB	32 KB				

If you have for example a single FAT32 partition on a 32GB hard disk, you have a cluster size of 32KB on it. If you store 10 files of 1 KB on this partition, this would use 10\*32KB=320KB of your hard disk space, and 320KB - 10KB = 310KB would be wasted. Especially a huge number of small files significantly increases the amount of wasted space on FAT partitions.

To reduce the wasted space, there are the following possibilities:

- Avoid using the FAT32 file system on partitions larger than 16GB.
- Windows 2000 and later versions provide the possibility to format your hard disk with the <u>NTFS file system</u>. It usually operates with 512 - 4096 Byte clusters and has the best storage efficiency of all Windows file systems. Furthermore NTFS is able to <u>compress</u> selected directory branches. NTFS partitions cannot be accessed from Windows 9x or DOS without use of 3rd party software.

# 8 Notes on NTFS

The file system NTFS can be used with the operating system Windows NT or later. It offers some special features which also have effects for TreeSize Professional. We will describe some of these features and their impacts on this software in the following paragraphs.

# Access Control Lists

A user under Windows NT or later is able to restrict the way other users can access his files and folders. He can grant or deny other users or groups certain rights like reading, writing, executing or deleting files. That way a user may even deny the administrator to access his files and folders. If an administrator tries to access a folder in the Windows Explorer to which the owner denied any other users reading access, an "Access Denied" error message will be displayed. However, TreeSize Professional is able to scan such folders, if you are logged in as administrator or as a user that has the right to perform backups (This option can be changed at "Control Panel" / "Administrative Tools" / "Local Security Policy" and with the user editor of Windows).

# File Based Compression

NTFS supports compression on an individual file basis. Files that are compressed on an NTFS volume can be read and written without first being decompressed by another program. Decompression happens automatically during the reading of the file. The file is compressed again when it is closed or explicitly saved.

The space occupied by a compressed file is usually much smaller than its normal size. As a consequence, for folders that are partially or completely compressed, the allocated space reported by TreeSize Professional may be smaller than the size reported for this folder. TreeSize Professional is able to show the compression ratio in an extra column on the "Details" tab. Additionally it can show compressed files and folders in a different color. These features

can be turned on in the Options dialog.

TreeSize Professional is able to compress and decompress entire file system branches using the <u>context menu</u>.

The NTFS version that comes with Windows 2000 and later supports an additional concept that is similar to compressed files: sparse files. Files which are large but only partially used are called sparse files. Because the operating system does not allocate disk space for the unused parts of a sparse file, it occupies less disk space than its actual size is. TreeSize Professional treats sparse files like compressed files and also calculates the compression ratio for them.

### **Reparse Points: Volume Mount Points and Symbolic Links**

Since Windows 2000 NTFS supports volume mount points and symbolic links. A volume mount point is an existing path where you "mount" another volume. Given this, users and applications can refer to the mounted volume by that path. It allows you to unify disparate file systems into one logical file system. Symbolic links work similar: If you for example have an empty folder "C: \Documents\Images", you can create a symbolic link to "E:\Pics" in it. Applications will then see the content of "E:\Pics" in "C:\Documents\Images".

If the <u>Option</u> "Follow Mount Points and Symbolic Links" is turned on, TreeSize Professional will include the contents of these folders when scanning. Since they are not physically stored on the drive you are scanning, this may produce irritating results.

### Alternate Data Streams (ADS)

In NTFS, a file consists of different data streams. One stream holds the security information (access rights and such things), another one holds the "real data" you expect to be in a file. There may be alternate data streams, holding data the same way the standard data stream does. These alternate data streams are hidden. That means that you can have a file with 1 byte in the official main data stream and some hundred MB in one or more alternate data streams. The dir command, file managers or windows explorer will show 1 byte as the size of this file, but it actually allocates more space on your hard drive.

TreeSize Professional can detect alternate data streams and add their sizes to the allocated file size.

Note: ADS stores information in the same cluster as the main data stream, so if a file has one or more ADS, this file does not necessarily allocate more disk space.

You can choose to detect alternate data streams, to get a more accurate allocated space of directory branches, in the <u>Options\_Dialog</u>.You can search for Files containing alternate data streams using the Custom File Search of TreeSize Professional.

### Hard Links

In a Windows environment a hard link is a reference, or pointer, to physical data on a NTFS storage volume. All named files are hard links. The name associated with the file is simply a label that refers the operating system to the actual data. On NTFS volumes more than one name can be associated with the same data. Though called by different names, any changes made will affect the actual data, regardless of how the file is called at a later time. Hard links can only refer to data that exists on the same file system. The data is accessible as long as at least one link that points to it exists. When the last link is removed, the space is considered free. Please note that all hard link pointing to the same file share also the same Security Description (access permissions).

If more than one hard link points to a file's data, the space allocated by these files is just one time the file size (not including the space of the file master table), no matter how many hard links exists TreeSize Professional is able to detect the number of hard links pointing to one file data and takes that value into account when calculating the allocated space of directory branches.

You can choose to detect hard links, to get a more accurate allocated space of directory branches, in the Options Dialog.

The TreeSize FileSearch uses the hard link mechanism of NTFS storage volumes to remove redundant file content of duplicate files. Use the "<u>Deduplicate</u>" function to remove duplicate files by hard links. This will reduce the allocated space of your hard disk.

# 9 Printing

TreeSize Professional has flexible printing functions:

You may print a detailed report by selecting "Print Report" from the <u>"File" menu</u> or by pressing the "Print" button in the <u>toolbar</u>. The report will show the directory structure of the current folder including directory lines and the information you have chosen in the <u>Options</u>. There you can also decide if the whole directory tree should be printed, or just those parts that are expanded in the TreeSize Professional window. This way you are able to choose the folders that will be included in the printed report.

If the "Details" tab is active in the right pane of the TreeSize Professional main window, you can print the contents of the folder which is currently selected by using "Print Folder Contents..." from the "File" menu. You will see all files and direct sub-folders in the printout, including the icons and the other information. If you want a listing of all files in the scanned folder or drive, you can copy a list of all files to the clipboard and paste it into your favorite spreadsheet or word processor by selecting "Export List of Files" from the "File" > "Export" menu (not supported in the Personal Edition). If a chart is visible in the in the right pane of the TreeSize Professional window, you can print the current chart by selecting "Print Chart" from the "File" menu.

You can open the "Page Setup" dialog to adjust the margins for printing. Use the "Print Setup" dialog to choose a printer. Both dialogs can be accessed from the <u>"File" menu</u>.

# 10 FAQ

- <u>General / Registration</u>
- Main Program
- Printing / Export
- File Search

# 10.1 General / Registration

- Q: Which operating system does TreeSize Professional run on? What are the system requirements?
- A: Currently the following operating systems are supported: Windows XP, Windows 2003 Server, Windows Vista, Windows Server 2008, Windows 7 in both their **32 Bit and 64 Bit**

editions. The operating system should have installed the latest patches. There are no additional system requirements. The Personal Edition does not run on Windows server systems!

## Q: Does the setup copy any files to the Windows directory?

A: No, all files of TreeSize Professional are copied to the selected installation path. The main executable file is even able to run without installation.

### **Q: Does TreeSize Professional support Unicode?**

A: Yes, all parts of TreeSize Professional support Unicode enabled.

## Q: Is TreeSize Professional able to delete readonly files?

A: If you start TreeSize Professional with administrative privileges, it will also try to delete write protected files when you are removing them from disk. In case this is not possible, e.g. because the file is locked by another application, this file will be marked for deletion. This means, Windows should delete the file on the next system restart. Please note that there is a difference between moving files to the recycle bin (shortcut "Del") and removing files from disk (shortcut "Shift" +"Del").

## Q: How can I order TreeSize Professional? What does ... cost?

A: For questions regarding prices please have a look at our price list and our ordering FAQ.

### Q: What is the difference between the Professional and the Personal Edition?

A: The Personal Edition has the same features as the Professional Edition, except that it does not support network drives, Windows Server systems, command line options and data export.

Since V5.4 the Personal edition scans network drives if the computer it runs on is not part of a Windows domain and the remote system is not a Windows server. This enables customers of the Personal Edition to scan network drives in their home network, including NAS systems based on Linux and Samba 3.

# Q: What is the difference between the evaluation copy and the full version? Will there be additional features?

A: The evaluation copy allows you to test the software before you buy it. The maximum time to do this is 30 days. Further usage of the software after this period is not permitted and violates the law. In order to allow our customers to fully test our software products, our evaluation versions usually do not contain significant limitations. But the software may remind you from time to time that you should purchase the software after your testing is finished.

## Q: I just purchased your product. How can I now activate my trial version?

A: You have to download the full version of the software from our customer's area at <a href="http://www.jam-software.com/customers/">http://www.jam-software.com/customers/</a>. The login data can be found in the email or in the printed license which you have received after the purchase. In case that you do not have your login data any more, you can request them to be sent to the email address that you have used for purchasing the software.

### Q: Why don't you use activation codes that turn the trial version into a full version?

A: We do not work with activation codes because you can find them very easily on the internet. We are working with separate trial and full versions. After purchasing our software, customers get an account for our <u>customer's area</u> where they can download the full version for at least 12 months. We will also send a CD at additional cost. Our customers will also receive an installation key, which will be necessary to install the full version. You should keep both in a safe place. Installing the full version over the trial version will preserve your existing

data and settings.

# Q: How do I upgrade to the latest version?

A: In the "Help" menu you can use "Check for update" to check online if there are updates available. Within your maintenance you can download the latest version of TreeSize Professional from our <u>customer's area</u>. The login details for our customer's area have been emailed to you after the purchase ad are printed on the license document. To upgrade older versions just run the installation file. Your user settings will still be available after the upgrade.

# Q: Although I have purchased the full version of your software product, it still shows "UNREGISTERED" in the window title. Why?

- A: There are 3 possible reasons why "UNREGISTERED" still shows up:
  - 1. You did not download and install the full version from our customer's area

2. You have accidentally installed the trial version again. (Have you been asked for an installation key?)

3. You have installed the full version to a different folder than the trial version which is now still on your disk.

- Q: Is one user license sufficient if the software is installed on one computer though two or three users may access the software?
- A: Basically you need as many licenses as you have PCs on which our software is available for execution. If these three users work on the same PC at different times, then one license is sufficient. If they work on three different PCs and start the software there, then you will need three licenses.
- Q: Can I scan my Linux/Unix servers or my Linux based NAS with TreeSize Professional?
- A: If <u>Samba</u> is installed running on the Linux / UNIX system, then our tools can access a share on this system using its UNC name, e.g. \\ComputerName\ShareName. If the file system on the Linux / UNIX system is accessible through <u>NFS</u>, then it can be accessed if the NFS support for Windows is installed. For Windows XP/2003 please install the <u>Windows Services</u> for UNIX, which include an NFS client. For Windows 7 (Professional and Ultimate) please go to the Control Panel and activate the "Services for NFS" under "Programs and Features > Turn Windows Features on or off". Then you can mount an NFS share to a drive letter using this command:

mount \\ComputerName\ShareName N:

It might be necessary that you create the following registry values if you have trouble connecting the NFS drive:

HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\ClientForNFS\CurrentVersion\Default\AnonymousUid as DWORD with the decimal value 10011.

HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\ClientForNFS\CurrentVersion\Default\AnonymousGid as DWORD with the decimal value 10012.

All this applies to the Professional edition only.

# 10.2 Main Program

- Q: Why is the allocated space that Windows shows in the properties dialog of the drive larger than the allocated space reported by TreeSize Professional?
- A: The Windows Explorer and the TreeSize Professional <u>drive list</u> do show the space that is *physically allocated on the drive* while TreeSize Professional shows the space that is occupied by all files *under a certain path*. Please make sure that you have the view option "

<u>Allocated Space</u>" activated when you are interested in the physically allocated space.

A possibility is that not all parts of the drive could be scanned due to <u>access\_restrictions</u>. Therefore it is highly recommended to run TreeSize Professional as administrator. Turn on "View > Options > Show Errors Messages" to get notified if a folder cannot be scanned. Turning on the Option "*Track NTFS Alternate Data Streams and NTFS Hard Links*" in the <u>Options dialog</u> may result in more accurate results but slows down scans. If a drive letter points to a sub-folder of a network drive, the allocated space (correctly) reported by TreeSize Professional may also be much smaller than the physically allocated space on this drive reported by the Windows Explorer because possibly the whole drive is not accessible through the network.

Beyond the space that is needed for storing the files itself, additional space is used for storing management data like the File Allocation Table of the file system or the boot sector. It is not possible to free this space with TreeSize Professional or any other tool. This is usually 0.5 - 2% of the occupied space. Another possibility is that you are using a Software RAID - like Windows offers it - which spreads the data with redundancy over several disks. These disks will appear as one logical volume and the failure of a single disk will not cause any data loss. But for storing the redundant information additional space is needed.

On Thinkpad laptops the Rescue&Recovery feature may use a lot of disk space in the folder "RRBackup" which is not accessible to other applications.

- Q: Are there any limitations on the amount of data that TreeSize Professional can query at one time?
- A: There are no explicit limitations in what TreeSize Professional is able to scan. The more folders and files the file system tree has that you want to scan, the more free memory will be necessary to store the queried data. You can reduce the memory consumption by turning off the <u>user statistics</u>, the <u>file extensions statistics</u> and/or the <u>file age statistics</u> in the <u>Options</u> dialog. For large server our product <u>SpaceObServer</u> may be suitable as well, which stores the collected data in a database on file level.
- Q: Why do all files on my disk have the same last access date which is not far in the past?
- A: The date values in the file system are maintained by Windows. Windows updates the last access date of a file each time when an application accesses or reads a file. Many backup and virus tools access every file on your hard disk regularly without restoring the prior last access date.
- Q: Why doesn't TreeSize Professional include my disk into its calculation, which is mapped to a directory using the Disk Manager of Windows?
- A: By changing the option "Follow mount points and symbolic links" in the <u>Options</u> of TreeSize Professional, you can control if mount points and symbolic links should be followed or if they should be excluded from the calculations.

### Q: What is the easiest way to scan all drives of a remote server?

- A: TreeSize Professional accepts wildcards in paths, simply tell TreeSize Professional to scan \ \Server\?\$ in the folder combo on the top left or at the command line.
- Q: Scanning a server disk via network is very slow. Is it possible to speed up this process?
- A: Scanning a drive via network is normally much slower than scanning a local disk because the speed of the network is much lower than the speed of your hard disk. Additionally, server drives are usually much bigger and contain more files than local hard disks. But you can use the <u>Command Line Options</u> to perform your scans overnight. Network drives and command line options are supported by the Professional Edition only.

For continuous analyzing of disk usage on large servers we recommend our product SpaceObServer. It collects the data using a background system service and stores it in a SQL database. It uses less RAM than TreeSize Professional, and the reporting capabilities are more flexible because it is built on a database. More information is available at <a href="http://www.jam-software.com/spaceobserver/">http://www.jam-software.com/spaceobserver/</a>

- Q: Is it possible to have the program ignore folders that are less than a certain size when displaying them in the tree?
- A: In the context menu of the topmost folder you may choose to remove folders below a certain size. To achieve this, right-click on the topmost icon (or use the "Expand" submenu of the "Branch" menu), select "Expand" and then "Remove Folder <XX MB".

### Q: Is it possible to add the free space to the bar chart?

- A: The free space is added to the pie chart if TreeSize Professional is in the "Allocated Space" mode and the root of the scanned drive is selected. In other situations (e.g. if a sub-folder is selected or the "Wasted Space" mode is active), it doesn't make sense to add the free space because the relationship between the free space and the other values displayed is wrong.
- Q: Can I scan network drives and hidden shares like" \\Server\C\$" without connecting them to a drive letter?
- A: Yes, in the Professional Edition you can use UNC names like "\\SERVERNAME\Share" to access a network drive by entering them in the drive combo box on the top of the main window. You can also use UNC names on the <u>command line</u>.
- Q: I would like to save a set of drives and folders that are scanned each time I start TreeSize Professional. How can I do that?
- A: You can specify the startup behaviour of TreeSize Professional in the <u>Options</u> dialog. Or you can simply create a shortcut to treesize.exe on your desktop or Start Menu and add those drives and folders to the command line, separated with a space character.

### Q: How can I limit a scan to just one user's files?

- A: Please make sure that the option "Create Statistics on File Owners" is activated in the <u>Options</u> of TreeSize Professional. After the scan is finished please right-click on this user on the "Users" tab and choose "Limit to this user" from the context menu. You may also use the Custom File Search to search files of certain users.
- Q: On a Novell Netware volume, TreeSize Professional reports compressed files as uncompressed and the user names are missing in the Owner columns. Why?
- A: Unfortunately the Netware client for Windows does not supply information about compression and file owners through standard Windows API functions. So developers have to integrate special support for Netware in their applications. We may address this issue in a later version of TreeSize Professional, but so far we do not actively support Netware. All other parts of TreeSize Professional work fine with Netware volumes.

## Q: Is it possible to perform a silent installation of this software?

A: Starting the setup with the command line parameters /SILENT /SUPPRESSMSGBOXES / PASSWORD=YourInstallkey will perform a silent and automatic installation with the default settings. Please replace YourInstallkey with the installation key that you received after your registration. Using /VERYSILENT instead of /SILENT will prevent any visual feedback. The option /DIR="x:\dirname" can be used to override the default install path.

#### Q: Is it possible to search for file extensions with TreeSize Professional?

A: You can for example apply a <u>filter</u> for a scan in the <u>Options</u> by adding patterns like \*.bmp to

the edit field. A second possibility is to enable the "Create Statistics on File Extensions" feature in the <u>Options</u>. This will provide a detailed statistics for the file types in each sub-tree on the "<u>Extensions</u>" tab and you will be able to limit the values in the directory tree to one file type. A third possibility is to use the <u>Custom\_File\_Search</u> of the File Search Module of TreeSize Professional. Our product <u>SpaceObServer</u> has extended and more flexible reporting features if needed.

- Q: The wasted space shown by TreeSize Professional is extremely high. How can I reduce the wasted space?
- A: Most likely you are using the FAT32 file system which usually produces a lot of wasted space due to its large cluster size. Please read the chapter "<u>Wasted\_Space</u>" in the help file to understand what wasted space is and to learn how to reduce it.
- Q: The folder "System Volume Information" in the root of my drive uses a lot of disk space. What is the purpose of this folder?
- A: This folder is part of the Windows System Restore. You shouldn't delete any files in this folder manually. Its size can be reduced by changing the appropriate setting in the System applet of the Windows Control Panel. Windows Vista only allows to turn off the System Restore here. The space used by this service can only be reduced using the Windows command line utility vssadmin.
- Q: When I run TreeSize Professional on one of our PCs, a blue-screen occurs / the PC reboots. Why?
- A: A normal Windows application like TreeSize Professional cannot cause a blue-screen or a hard reboot, only device drives and central parts of the operating system can cause this. Most likely something with this system is not OK and TreeSize Professional just triggers the real cause for the problem. This can happen because TreeSize Professional accesses parts of the harddisk that are not accessed during normal operation or because of the additional load that a TreeSize Professional scan puts on the machine.

## Q: Can TreeSize Professional be installed on a cluster?

A: **Yes**, TreeSize Professional can be installed on a cluster. It is not cluster aware, but does not need to be. If you obtain a license for each server and install TreeSize Professional on all machines of the cluster, then you will have TreeSize Professional available at any time on any server of the cluster.

### Q: Are there any known problems when using TreeSize Professional on a Citrix server?

A: TreeSize Professional runs in a Citrix environment. But on startup of TreeSize Professional it is may not be visible on the taskbar. If you minimize the application, you can't find it no more. This is a common problem of Citrix server. You can fix it by adding the following keys to your registry:

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\Citrix\wf
shell\TWI]
"DllName"="seamls20.dll"
"NotifyEvent"="WfshellTwiNotify"
"SeamlessFlags"=dword:00000040
```

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\Citrix\wf
shell\TWI\TMainForm.UnicodeClass]
"ClassName"="TMainForm.UnicodeClass"
"Type"=dword:00000041
```

### Q: Where does TreeSize Professional store the data shown on the "History" tab?

- A: This data is stored in the file named ScanHistory.xml which is stored in you user profile directory under Application Data\JAM Software\TreeSize Professional,
- Q: If I scan network shares under Windows Vista, I get the error message that the access to certain folders is denied, although I am a domain administrator. What can I do?
- A: TreeSize Professional uses a special mechanism of Windows to get file listings of folders to that you actually do not have read access. The same applies if you scan network shares and belong to the group of domain administrators. Windows Vista Service Pack 1 has a bug confirmed by Microsoft that prevents this mechanism from working on network drives. Installing the Hotfix KB950790 for Windows Vista will fix this problem. This Hotfix is included in the Windows Vista Service Pack 2.
- Q: TreeSize Professional shows incorrect number of hard links for files, stored on a network share. What can I do?
- A: Since Windows 2008 Server and Windows Vista Microsoft uses "Client Caches" in order to speed up the queries about gathering file and directory meta information on network drives. This approach helps also to utilize the available network bandwidth more efficient. However, these caches do always return an incorrect value for the NTFS hard links (always shown as "1").

The responsible caches can be disabled by the following steps:

1. Run "regedit.exe".

2. Open the path "HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\services\Lanmanworkstation\Paramet ers".

3. Choose "New > DWORD value" in the right click menu and set the name to "FileInfoCacheLifetime" and the value to "0".

After these steps TreeSize Professional should work properly with hard links. For further information about the subject please visit <u>http://technet.microsoft.com/en-us/library/ff686200</u> (WS.10).aspx

Note: In case a file has been recently opened, the number of hard links will still be shown as 1. After a few seconds the value will be shown correctly again.

# 10.3 Printing / Export

# Q: How can I specify the columns that should be included in the printed report / exported Excel file?

A: Under "View > Options > Columns" you may choose the included columns after selecting one of the export options in the pull down box on top of the window. They will also be used for <u>scheduled scans</u> as long as they are started under the same user account..

# Q: How can I generate a list of files that belong to a certain user?

A: Please make sure in the <u>Options</u> of the "**Scan**" tab that statistical data for the users is collected. Scan the folder and wait for its completion. Go to the "Users" tab in the right pane, right-click on a user and select "Limit on this user". Then right-click on the root of the scanned directory and choose "Export" > "Copy List of Files" which may take a while. Then paste the file list e.g. to a spreadsheet.

# Q: Why does TreeSize Professional Professional not export the file names to my Excel / HTML / Text file?

A: The export functions of TreeSize Professional were mainly designed to export information about folders and their size. However, you can copy a complete list of files to the clipboard using the context menu of any folder in the tree. You may also use the custom search type of the <u>TreeSize Professional File Search</u> to list all or some files of a directory branch. These lists can be exported as well, e.g. to Excel files. You may also try our freeware command line utility <u>FileList</u> which was designed to generate simple file lists without the overhead of a GUI application. Our product <u>SpaceObServer</u> is able to perform the exports including the files right from its underlying database.

To get a complete list of all subfolders when exporting please make sure that the Option "Full Branch" is selected under "File" > "Export" > "Customize" > "Export".

- Q: All prints on my Brother laser-printer appear mirror-inverted. How can this be corrected?
- A: Please open your "Control Panel" and select "Printers". Now right-click on your Brother printer and select "Properties". In the Properties dialogue click on "Advanced". Here you will find a selection for the print processor (modprint, brprint, winprint). Please choose winprint and try to print again.
- Q: When I double click on a CSV file they open in MS Excel but the data is not divided into columns. Can this be changed?
- A: In the Windows Control Panel, please set the list separator under Control Panel > Regional Options > Customize to semicolon.

# 10.4 File Search

### Q: How can I search for files of the type XYZ?

A: Open the TreeSize Professional File Search via the Windows "Start" menu or the TreeSize Professional "File Search" menu, activate only the <u>custom search</u> type and check the drives that should be searched, on the tab "Custom Search" enter "\*.XYZ" to the list patterns that should be matched, then press the "Start" button on the right. Another possibility: Set a filter in the <u>Options</u> dialog of the main application. Then TreeSize Professional will only include matching files when calculating the folder sizes. The results will provide a good overview of the distribution of these file type(s) and can be exported to a text file using the context menu. Our product <u>SpaceObServer</u>, which keeps the data of watched file system trees in an SQL database, has faster and more flexible search and report features.

# Q: Is it possible for TreeSize Professional to move files to a specified location based on last change date and retain directory structure?

A: Please start the TreeSize Professional File Search through the main menu of TreeSize Professional or the Windows Start menu. Activate only the "Oldest files" search type on the "Search Options" tab and adjust the date on the "Oldest files" tab. You may also use the Custom file search if you need more flexible filter options. Then hit the "Start" button on the right. All listed files that are checked can then be moved using the "Move Checked" button on the right. If you choose another file system folder as destination, the directory structure will be preserved when moving the files.

### Q: How can I search my entire network for AVI files?

A: Open the TreeSize Professional Custom File Search using the Windows Start menu or the TreeSize "File Search" menu. Make sure that only the Custom Search type is activated on the "Search Options" tab and hit "Browse and add path", choose "Network". On the tab

"Custom Search" add the pattern \*.avi and hit "Start".

- Q: Is it possible to check several or all results in the File Search window at one time instead of checking them individually?
- A: To check all results, click on "Edit > Check All" in the main menu. You may select multiple files using a left mouse click while holding the <Shift>- or <Ctrl>-key down. Using "Check" from the context menu checks all currently selected files. Some successive files can also be easily checked by pressing the space bar several times. The space bar checks the currently focused file and advances to the next file in the list.

# Q: Which files can I safely delete?

- A: Unfortunately there is no short and easy answer to this question because usually one cannot know where a file came from and what it is used for. Generally temporary files and cache files of the internet browsers can nearly always be deleted safely. Besides deleting files, the file search of TreeSize Professional offers you to move files to a different drive or to a compressed ZIP file which can then be archived. That way files that are still needed can be easily restored.
- Q: Does TreeSize Professional have the capability to delete files in specified directories over a certain age and if so, can this be scheduled?
- A: The TreeSize Professional File Search can search, report and delete or move files over a certain age in using the "<u>Oldest Files</u>" search type or the <u>custom search</u> type. Check the files you want to delete (use "Edit > Check All" to check-mark all files) and use the "Move" button on the right to move them to the Recycle Bin or to another folder. Scripting this is possible through the <u>command\_line\_option</u> /MOVETO (Professional Edition only). Any search options saved to an XML file can be passed at the command line and the results can be saved using /SAVE or moved, for example: TreeSize.EXE /SEARCH /MOVETO "C:\Temp\TST\Moved" "C: \Temp\TSP\Files\_ending\_with\_TMP.xml". You may pass "Recycle Bin" as destination as well: TreeSize.EXE /SEARCH /MOVETO "Recycle Bin" "C:\Temp\TSP\Files\_ending\_with\_TMP.xml". You may use "Tools > Schedule Current Search Options" to open the <u>TreeSize Schedule dialog</u>.

## Q: How can I change XY for each file in the search results in a scheduled File Search?

A: Start the TreeSize File Search. Please configure the custom file search appropriately, turn off all other search types and save your search options to an XML config file using the "File" menu. As an example we will describe how to apply NTFS compression to all files in the search results. This is not built into TreeSize Professional, but TreeSize Professional can pass each search result to an executable or script, which is a very powerful and flexible feature. Please create a small Batch file NTFSCompress.bat containing:

To NTFS compress the search results, you can use a command line like this: TreeSize.exe /SEARCH /MOVETO NTFSCompress.bat MySearchOptions.xml This solution applies to the Professional Edition only

This solution applies to the Professional Edition only.

## Q: How do I perform a duplicate file search on multiple network drives?

- A: Open the TreeSize Professional File search using the Windows Start menu or the TreeSize Professional Tools menu, on the "Scan Options" tab activate only the duplicate file search, add the network paths to the list of "Drives and Paths to Search" and start the search. You may change the way TreeSize Professional compares the files on the "Duplicate Files" tab.
- Q: After deduplicating files, the Windows "Properties" dialog still shows the same size for the containing folder. Why is this?
- A: When deduplicating files, TreeSize Professional replaces duplicate files by hard links, after

which the physical data exists only once on the hard disk. There are however X links to this data. Each of these links is shown with the size of the physical data, this is why the Windows Explorer and by default also TreeSize Professional shows the same disk usage for these files and the folders they are included in. If you take a look at the allocated space of the physical drive (in the "Drive Panel" in TreeSize Professional or in the "Properties" of the drive in the Windows Explorer) you will notice the difference. To get the correct physically allocated size of a folder, you need to use the TreeSize Professional main application and make sure that the option "Track NTFS Alternate Data Streams and Hard Links" is turned on in the Options.

- Q: Is it possible to scan all our 300 workstations with TreeSize Professional for finding e. g. who stores PST files locally on his workstation?
- A: What you can do is using the <u>Custom Search</u> type of the TreeSize Professional File Search. It allows to search an entire Windows domain for certain files, like \*.pst. Simply specify \ \YourDomainName as path to search. TreeSize Professional will then enumerate all available PCs in that domain and search their drives (or more exactly: their public and hidden shares) for the files matching the search criteria.
- Q: Does TreeSize Professional support paths with more than 255 characters when searching files?
- A: Yes. Long path can be searched for using the Custom Search.
- Q: How do you search for files over a certain number GB and older than a certain date? I'm trying to find data to archive on my file server
- A: Please start the TreeSize Professional <u>File\_Search</u> using the "File Search" menu or the Windows "Start" menu, activate the "*Custom Search*" type only on the "*Search Options*" tab and adjust the search parameters on the "*Custom Search*" tab accordingly.
- Q: Does TreeSize Professional change any of the modified/accessed/changed date & time information on files or folders when scanning?
- A: No, TreeSize does not change file dates when scanning a file system branch.

## Q: Does TreeSize Professional allow to search for directories?

A: Yes. You can use the <u>Custom\_Search</u> type of the TreeSize Professional File Search to do that. Start the File Search using the Windows "Start" menu or the TreeSize "File Search menu and open the "Size / Attributes" tab of the <u>Custom\_Search</u>. Select the "Directory" attribute only. TreeSize Professional searches now for directories only. Example: To find all directories named "System32" use the pattern: \*\System32

## Q: Does TreeSize Professional allow to search for empty directories?

A: No. Empty directories do not occupy disk space on NTFS volumes, so searching for empty directories costs time, but does not free up disk space. Furthermore there are directories in which programs place (temporary) files only while they run. Deleting these directories can cause error messages or malfunctions when starting those programs the next time. What you could do is to <u>export</u> a scanned directory branch to an excel file and use Excel's "Auto Filter" feature to filter those folders that have zero files in them. Please make sure that this option is checked before exporting: File > Export > Customize > Excel > Export > Export Full Branch.

# 11 Windows & Tabs

## • <u>Toolbars</u>
- File System Tree
- Drive Panel
- Chart
- Details
- Extensions
- Users
- File Ages
- Top 100 Files
- <u>History</u>

#### 11.1 Toolbars

Directly beneath the menu bar you'll find three toolbars showing icons for fast access to frequently used functions. Every single toolbar may be turned on or off in the context menu (right-click on the toolbar).

#### Toolbar "Scan"



The first toolbar "*Scan*" includes on the left side a pull down box with drives. Here you can determine which drive should be scanned. TreeSize Professional saves those paths that were last used in the pull down box for faster access. You can also enter a path directly and press the "Enter" key to start the scan. It is possible to use environment variables like %TEMP% and wildcards like '\*' here.

Next to this box you'll find various icons for scanning of folders and drives.

- Starts the scanning process. Scans the drive or folder selected in the pull-down box on the left
- Lets you select a folder for scanning
- Lets you scan the whole folder again
- Turns on/off the automatic updating based on news from the Windows Shell
- Remove this folder from scanning by TreeSize Professional
- Prints a report for the active folder
- Moves back to the previously selected folder.
- Moves forward again and so reverts the last click on the "Back" button.

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- Move to the parent of the currently selected folder.
- Change settings for viewing and folder scan
- Opens the **Software** dialog from the Windows System Control
- Shows the window for file search (see File Search)

#### Toolbar "Data"



The second toolbar Data includes icons for the viewing of collected data.

- Opens up the folder tree up to a certain level
- 000 Shows folder size
- Shows how much disk space a folder requires
- % Shows how many percent of the superordinated folder each folder takes
- Shows space, wasted by the file system
- Shows how much space a folder would need on a CD-ROM
- Bows the number of files in a folder
- Sorts elements alphabetically
- Sorts elements according to their size
- Shows elements without sorting
- KB Shows values in kilobytes
- MB Shows values in megabytes
- GB Shows values in gigabytes
- Uses an adequate unit of measurement according to the size of the elements
- Shows a pie chart for the active folder
- E Shows a bar chart for the active folder
- Shows all information for sub-folders

#### Toolbar "Overview"

🚰 C:\ Size: 55,9 GB Allocated: 56,6 GB Files: 291.684 Folders: 43.733 Last Change: 20.12.2010 Last Access: 20.12.2010 Owner: TrustedInstaller

The third toolbar Overview shows you the active drive as well as its usage and seizure.

### **11.2 Directory Tree**

The directory tree of the drive or folder scanned by TreeSize Professional can be viewed in the left pane of the main window. It gives you a quick overview of the size of each folder. You may use this tree just like a folder tree in Windows Explorer. If you place your mouse cursor on a folder you'll be shown an elaborate tool tip with detailed information if the appropriate option is active in the <u>Options dialog</u>.

The directory tree supports an incremental search, which is started if you start typing the initial characters of a folder name when the directory tree is the active control. It will then select the first matching folder.

With "Branch" > "Update" you may update this window; with "Branch" > "Expand" you can determine to which level the tree should show sub-folders. Try the menu bar and the context menu (right-click on a folder) in order to use more functions (see <u>Context Menu</u>)

#### 11.3 Drive Panel

The drive panel shows the local drives and connected network drives. More network drives many be added by using the context menu (Professional edition only).

You can see the size of the drive as well as free disk space. Double-clicking starts a scan of the selected drive.

#### 11.4 Chart

TreeSize Professional is able to visualize folder sizes as pie charts, bar charts or <u>tree maps</u>. A chart always shows the size of the sub-folders of the currently selected folder. A pie chart shows the size, allocated space, wasted space etc. depending on what kind of <u>view</u> the user selected in the toolbar. The bar chart shows the size, allocated and <u>wasted space</u> together in one chart because: branch size + wasted space = allocated space. If a bar chart doesn't fit in the window, a scrollbar is displayed on the right side, which allows scrolling in the chart.

In the **pie chart**, small folders may be summarized in a slice named "Other". If a root of a drive is displayed in a pie chart and you have switched to the "Allocated Space" mode, the free space of this drive will also be displayed as one slice of the pie. There is an option in the right click menu of the pie chart to turn this behaviour on or off. The pie chart just shows the free space as one slice among the others and calculates the percent appropriately (relatively to the others), so the percent value might differ from the "% Free" value of the drive if TreeSize didn't see all files. An FAQ entry deals with the possible reasons.

Clicking on a slice or bar shows detailed information about the corresponding folder, double clicking will change into the selected folder. Under View / Toolbars or in the context menu of the chart the chart toolbar can be turned on or off. It allows you to manipulate the charts in several ways, for example zooming, turning on or off the grid lines, switching between 2D and 3D mode, changing colors, etc. Using this toolbar, you can also copy the current chart to the clipboard or save it as a file. The color of a chart element can be changed by selecting the appropriate color in the color pull-down menu and then clicking on the chart that you would like to change.

#### TreeSize Professional

Choose Print Chart from the File menu to print a chart. A chart will be printed exactly as you see it on the screen.

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9	Displays the selected directory as pie chart.
E	Displays the selected directory as bar chart.
	Displays the selected directory as tree map chart.
<b>P</b>	Copies the displayed graph to clipboard.
2	Prints the displayed graph.
	Saves the displayed graph.
<b>~</b>	Toggles 3D view on / off.
Ē	Toggles the graph's legend on / off.
Ш	Toggles vertical grid lines on / off (available for bar charts only).
	Toggles horizontal grid lines on / off (available for bar charts only).
	Toggles background gradient display on / off (available for bar charts or pie charts only).
	Changes the graph filling from full color to shades. (available for bar charts and pie charts only)
<b>H</b>	Allows to choose a color for changing the color of a chart element. Click on a chart element after choosing a color to change the element's color. The right click menu offers the possibility to reset the colors.
Æ	Zooms in
ø	Zooms out
E	Shows the parts of all directories and files in the slices of the pie chart (available for pie chart only)
.txt .exe	Shows the parts of all file extensions in the slices of the pie chart (available for pie chart only)
28	Shows the parts of all file users in the slices of the pie chart (available for pie chart only)
r <b>0</b>	Changes the file size resolution in the tree map display (available for tree map charts only)

### **Context Menu**

The right click on any chart shows a popup menu that offers features to export or print the chart.

#### 11.4.1 Tree Map

The Tree Map is a hierarchical chart that is able to visualize the sizes of each subfolder (not only direct child folders) of a selected directory branch.

Each folder is shown as a rectangle. The area of the rectangle represents the size of the corresponding folder. The rectangles of subfolders are located inside the rectangle of their parent folder. If a folder has no subfolders and <u>file extensions statistics</u> was activated during the scan, the file types are now shown as subitems.

The color of the rectangle face indicates the directory level. The colors range from dark red (top level directories) to bright yellow (directories with a deep file system level). These colors can be adjusted using the color dropdown in the toolbar of the "Charts" tab. The shown rectangles must have a minimum size to be displayed. You can customize this minimum value using a track bar in the toolbar. If this value is small the chart will be can be very complex and confusing.

If you place the mouse cursor over the chart, you will see a tooltip containing information about the directory below the cursor. Double clicking on one of the rectangles will navigate to the corresponding directory in the directory tree. Drag and drop operations are supported in the tree map.



You can use the same export functions as with the bar or pie chart (see <u>Charts</u>). Use Ctrl + and Ctrl - to zoom the tree map, or use the mouse wheel while keeping the CTRL key pressed. Use the cursor keys, Home, End PgUp and PgDown to scroll the zoomed tree map. Or keep the spacebar pressed while dragging the treemap with the left mouse button for scrolling, similar to Photoshop.

### 11.5 Details

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The tab Details lists detailed information for sub-folders and files of the selected drive or folder.

You'll see a list of all elements in the selected folder. For each element many details are shown, such as size, space usage, wasted space, number of elements, share in super-ordinate folder in percent and the date of last access and last change.

ame	Full Path	Size	Allocated w	1.00		Change	Last Access
DataStore	C:\Windows\SoftwareDistrib	45.1 MB	45.1 MB	~	Name	0/2010	11/5/2009
Download	C:\Windows\SoftwareDistrib	36.6 MB	36.8 MB	~	Full Path	B/2010	1/20/2010
ReportingEvents.log	C:\Windows\SoftwareDistrib	0.2 MB	0.2 MB	~	Size	0/2010	8/11/2009
WuRedir	C:\Windows\SoftwareDistrib	0.0 MB	0.0 MB	~	Allocated	\$/2009	11/5/2009
AuthCabs	C:\Windows\SoftwareDistrib	0.0 MB	0.0 MB	~	Files	\$/2009	1/20/2010
SelfUpdate	C:\Windows\SoftwareDistrib	0.0 MB	0.0 MB	-	Folders	5/2009	8/11/2009
PostRebootEventCac	C:\Windows\SoftwareDistrib	0.0 MB	0.0 MB	1	Wasted		
				-	% of Parent		
				-	Last Change		
				1	Last Access		
				~	Compr.		
				~	Owner		
					CD/DVD size		
					Current Date		
					Attributes		
				~	File Type		
					Dir Level		
					Date Created		
					Path (Without Name)		
					Avg. File Size		
					Permissions		
					File Version		
					Title of Scan		
					MS Office Author		
					MS Office Last Save Date		
					Hardlinks		
					Error		
					Full User Name		
					User Comment		

By right-clicking the mouse in the table's head, you may toggle on/off different columns.

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- Copies the displayed list (or a selected part of it) to clipboard.
- Prints the displayed list (or a selected part of it).
- Saves the displayed list (or a selected part of it) to a file.
- Saves the displayed list (or a selected part of it) to an Excel file.
- Compress and saves the selected directory.
- $\mathbf{X}$  Moves the selected item(s) to the recycle bin.

Hold the "Shift" key pressed to remove the item(s) form the disk instead (Note: You can not recover files that are removed from the disk).

#### 11.6 Extensions

The tab Extensions shows information on size grouped by file types. Thus you'll have an overview of the types of files that use up most of the disk space. Use the toolbar Data in order to select specific information for view and the sorting of data. By clicking on the corresponding icons at the upper part of the tab you may also save the file type list in a file, print it, copy it or view a chart on the same tab as well. The statistics on file extensions can be activated and deactivated in the Options dialog.

In the toolbar are these buttons:

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- Filter the file system tree so that only the sizes for the selected file extension are shown.
- Turns off the filter again.
- Shows a list of all files of the selected file type.
- Copies the contents of the list to the clipboard. If multiple Items are selected, only the selected items will be copied.
- Saves the contents of the list to a file, several different formats are supported. If multiple items are selected, only the selected items will be saved.
- Saves the contents of the list to an Excel file. If multiple items are selected, only the selected items will be saved.
- Prints the contents of the list. If multiple items are selected, only the selected items will be printed.
- Shows/Hides a small bar chart below the list.
- Using this button the file types can be grouped together into groups like "Audio Files", " Video Files" or "System Files". You may configure the file groups in the Options dialog (See: "Options > File Groups").

#### 11.7 Users

The tab "*Users*" shows information on size grouped by users. At a glance you may inspect which user uses how much space in which folder. By using the icons in the upper part of the tab you can save this list in a file, print or copy it or view a chart on the same tab as well. User that do not own files in the currently selected file system branch will not be listed. The statistics on file owners can be activated and deactivated in the <u>Options</u> dialog.

By right clicking on the column header you may enable these additional column:

Full User Name The full name of the user, queries from Windows or Active Directory

User Comment	The user comment from Active Directory
Quota Usage	The usage queried from Windows quota management. To see values in the quota columns, you must run TreeSize Professional as administrator and quota must be enabled on the local drive that you were scanning.
Quota Limit	The size limit that is set for the user in the Windows quota manager.

In the toolbar are these buttons:

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- $\nabla$  Filter the file system tree so that only the sizes for the selected user are shown.
- $\mathbf{X}$  Turns off the filter again.
- Shows a list of all files of the selected user.
- Copies the contents of the list to the clipboard. If multiple Items are selected, only the selected items will be copied.
- Saves the contents of the list to a text, several different formats are supported. If multiple items are selected, only the selected items will be saved.
- Saves the contents of the list to an Excel file. If multiple items are selected, only the selected items will be saved.
- Prints the contents of the list. If multiple items are selected, only the selected items will be printed.
- Shows/Hides a small bar chart below the list.

#### 11.8 Age of Files

The tab File Ages shows the distribution of the age of scanned files. Basis for ascertaining the file age is the date of last change. Values for the specified period do not include the other, younger periods.

The toolbar offers export features equal to the Charts tab and allows you to <u>customize\_the</u> <u>intervals</u>. The boundaries of the intervals are always rounded to full days, that means to 00:00 a. m.



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- Copies the displayed graph to clipboard.
- Prints the displayed graph.
- Saves the displayed graph.
- Toggles horizontal grid lines on / off.
- Toggles 3D view on / off.
- Toggles background gradient display on / off.
- Changes the graph filling from full color to shades.
- Sets the file age intervals.

### 11.9 Top 100 Files

The tab Top 100 lists the 100 biggest files in the scanned branch together with some details. By using the tool buttons in the upper part of the tab you may save this list to a file, print it or copy it.

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Copies the contents of the list to the clipboard. If multiple Items are selected, only the selected items will be copied.

#### TreeSize Professional

- Prints the contents of the list. If multiple items are selected, only the selected items will be printed.
- Saves the contents of the list to a file, several different formats are supported. If multiple items are selected, only the selected items will be saved.
- Saves the displayed list (or a selected part of it) to an Excel file.
- $\mathbf{X}$  Deletes the selected item(s).

Note: Files of the system directory "System Volume Information" and the "Recycle Bins" will not be listed here.

#### 11.1(History

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In the History tab you can see line charts visualizing the size development of the selected root folder. After each scan the size, allocated space and number of files of the root folder is stored automatically in an XML file in users profile of the logged in user. These sizes are used to create this view. So the shown interval and frequent depends on the scans you have done for this root before.

Please note that only scans of the same path and the same <u>exclude filters</u> will be displayed in the history, because only those share a common base that makes them comparable.

If you are interested in the size development of subfolders in the scanned file system tree, we recommend using our disk space manager <u>SpaceObServer</u>, which archives file system information in a database and is able to track size development down to file level.

The History toolbar includes the options to copy, save and print the shown graph.

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- Copies the displayed graph to clipboard.
- Prints the displayed graph.
- Saves the displayed graph.
- Toggles 3D view on / off.
- Toggles vertical grid lines on / off.
- Toggles horzontal grid lines on / off.
- Toggles background gradient display on / off.
- Changes the graph filling from full color to shades.
- Sets the minimum value as the graph systems origin.
- Show marks including size values in the chart.

Shows or hides points on the line chart.

Besides the export options mentioned above, the context menu of the chart offers these options:

Remove ThisIf the right click was performed on a point in the history chart, then this pointPointcan be deleted permanently from the history using this command.

Purge Old HistoryThis command Allows you to delete old entries in the history. A date value will Data be queried after you have chosen this command.

## 12 The Menus

- File Menu
- Export Submenu
- Edit Menu
- Branch Menu
- View Menu
- Sort Menu
- File Search Menu
- Tools Menu
- Context Menu

#### 12.1 File Menu

The File menu allows you to select folders for scanning, to remove folders from the TreeSize Professional Window and to print or export the collected data.

Select Directory	Shows a dialog which lets you choose a folder for scanning. After pressing OK TreeSize Professional starts scanning the selected path. You can also enter a path directly into the drive combo box in the toolbar.
Recently Scanned	A list of paths and drives that were recently scanned in TreeSize Professional. Clicking a path will start the scan of this path.
Load XML Report	Opens a XML report that has been saved earlier. That way you can view earlier results without performing a whole scan again.
Recently Saved	A list of XML reports that have been recently saved. Clicking an XML reports loads it into TreeSize Professional.

Save XML Report	Save the information of the current file system branch to a XML file. This file can be loaded in TreeSize Professional again or can be used to perform a comparison at a later time. TreeSize Professional ships with a XSLT file that formats the data inside the XML file for output in a browser that supports XSLT processing (e.g. Firefox >V1.0 or Internet Explorer >V5.5). Please note that the information about single files is not saved to the XML because this would increase the size of the XML files too much. Thus only the information about folders is included in the file. If you need reporting on file level, our software <u>SpaceObServer</u> may be useful for you.
Compare With XML Report	Loads a saved XML report and compares it to the current one by "subtracting" the old size information from the current one. That way folders unchanged in size will show up with a size of 0 after the comparison, folders that have grown will have values greater than 0 and will be displayed in red color. Folders that became smaller compared to the loaded report will have negative values and will be displayed in green color. Please note that since the information about individual files is not included in the XML reports, the detailed view will not show the change of the size of individual files.
Export	Only available in the Professional Edition. See chapter Export Submenu.
Set Title	Allows you to set a title for the currently active branch which will be used when the folder data is printed or exported. The default title includes the path of the scanned folder and the volume name of the drive where the folder resides in.
Print Report	Prints a detailed report of the current folder. See Printing.
Print Report for All	Prints a detailed report for all scanned drives / folders in the left pane
Print Chart	Prints the currently visible Chart
Print Folder Contents	Prints a list of all objects in the current folder including the icons, size, date, etc.
Page Setup	Shows the Page setup dialog where you can specify the margins for printing, paper size etc.
Printer Setup	Shows the print setup dialog
Exit	Closes TreeSize Professional

### 12.2 Export Submenu

The export of the File menu submenu is only available in the Professional Edition and allows you to export the collected in data in different ways. You may customize the kind of data (columns) that will be exported on the columns tab of the <u>Options</u> dialog. For all ways of exporting applies that only those folders will be exported that are currently visible (expanded) on the left pane of the main window. In the <u>Options</u> you can decide if all folders or just the visible folders should be exported. That way you can control which data will be exported either manually by expanding and collapsing folders or by using the <u>context menu</u>.

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Save As Text Save the collected data to a tab-separated text file

Save as HTML Allows you to save a report as HTML file which can be viewed with any HTML browser later. HTML files are more easy to read than text files and don't require a special application like MS Excel. If a <u>chart</u> is currently visible in the right pane of the window, then it will be embedded in the HTML file as an image. The HTML file will be UTF8-encoded and thus includes Unicode characters. In the <u>Options</u> dialog a stylesheet file can be set for the HTML export.

Export Data to Excel Exports the collected data to an MS Excel compatible file. The formats Excel 97-2003 (file extensions XLS) and Excel 2007 (file extension XLSX) are supported. Paths that are exported to Excel files are exported as clickable hyperlinks. This allows you to quickly jump to the appropriate path in Windows Explorer

Copy to Clipboard Copies the data of the current file system branch to the clipboard in text format

Send by Email Sends the current data as a text email via Windows MAPI. This requires that MAPI is configured properly, which can be done in the Control Panel using the applet "Mail".

Customize Opens the Options\_dialog which allows to customize the output columns

Copy List of Files Copies a list of all files in the current folder (and its sub-folders) to the clipboard. You can paste this list to your favorite spreadsheet or word processor. The columns that will be included in the list are determined by the settings for the text export in the <u>Options</u> dialog. Please note that activating the owner or permission column will significantly slow down the export process because querying this information under Windows is a slow operation.

### 12.3 Edit Menu

This menu contains function similar to the Edit menu of the Windows Explorer.

#### 12.4 Branch Menu

The main menu bar has a **Branch** menu that contains some actions that can be applied to complete scans / branches.

- Update Rescans the current directory branch completely
- Automatic Updates Allows you to turn automatic updates on or off for the currently selected scan. If automatic updates are turned on TreeSize Professional keeps track of the Windows change notifications and updates the changed folders. It will also update the size of a folder if it gets listed on the details sheet. If you don't want the size information to change after the scan has finished, you should turn off "Automatic Updates".

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Expand	The Expand submenu equals the one in the <u>context menu</u> .
Remove From TreeSize	This menu item will remove the currently selected scan from the view.

#### 12.5 View Menu

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Toolbars	Allows to turn the toolbars on or off
Show Drives Panel	Allows to turn a list with local and remote drives in the lower left corner of the main window on or off .
Right Pane	Lets you choose which information is displayed on the right pane of the window.
Decimals	Choose the number of decimals that should be used when TreeSize Professional displays or prints values.

You can choose different types of values for displaying in the tree on the left side:

Size	In this mode the size of the files in a folder including all sub-folders will be
	shown.

- Allocated Space This will show the amount of space that is allocated on disk for this folder, again including all sub-folders.
- Percent Shows how many percent of the parent folder's size each folder occupies
- Wasted Space Shows the amount of space that is <u>wasted</u> by the file system for the storage of all files in this folder, including all sub-folders
- CD-ROM Cluster Size This mode will show how much space a folder would occupy on a CD-ROM. Please keep in mind that some space on the CD will be needed to store the directory information.

File Count Shows the number of files in each directory branch.

Use the next menu items to switch between different tab sheets for the right pane of the TreeSize Professional main window:

Chart	Shows a chart on the right side of the window.
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Details Shows a <u>detailed list</u> with all objects in the current folder. For each object, you can see the size, the allocated and wasted space, the number of files, the last access and change date and the percent of the parent folder.

Extensions Shows a statistic for the currently selected file system branch that shows the size of each <u>file type</u> in this branch.

Users Shows a statistic for the currently selected file system branch that

shows a statistic for the  $\underline{\mathsf{users}}$  with the summarized size of all files that he owns.

- File Ages Shows the distribution of the <u>file ages</u> in a bar chart.
- Top 100 FilesShows a list with the Top 100 largest files in the scanned directory or<br/>drive.

You can change the way TreeSize Professional displays the sizes using these menu items or the corresponding toolbar buttons.

Values in Bytes	All size values will be shown in Bytes
Values in KB	All size values will be shown in Kilobytes.
Values in MB	All size values will be shown in Megabytes.
Values in GB	All size values will be shown in Gigabytes.
Automatic Units	For each value an appropriate unit (KB/MB/GB) is chosen automatically

To change the main settings of TreeSize Professional:

Options Shows the Options dialog.

### 12.6 Sort Menu

Sort by size	The largest folders will be displayed first.
Sort by name	The folders will be sorted alphabetically.
No Sorting	No sorting is done. This can be useful when scanning large folders drives because folders don't permanently change their position.

#### 12.7 File Search Menu

This menu starts the TreeSize Professional File Search with one or all search types. For more information please see the chapter "File Search".

### 12.8 Tools Menu

Update all	Rescans all folders which are currently listed in the TreeSize Professional main window. You can update an individual folder through the <u>context menu</u> of this folder.
Group all Scans in a Virtual Root	Using this feature it is possible to group scans under a virtual root folder. This virtual root folder shows a summary of all scans that are part of this group. This way you can merge different scans together e.g. for printing or exporting. You can add or remove scanned paths individually

	from the virtual root folder using the <u>context menu</u> .
TreeSize File Search	Shows the "File Search" window which allows to search for obsolete files
Start TreeSize as Administrator	This menu item, which is only available under Windows Vista, will start TreeSize again with full administrative privileges.
Schedule TreeSize Scan	Opens a window that helps you to schedule scans
Manage Scheduled Tasks	Allows to edit previously created Scheduled Tasks.
Add/Remove Software	Opens the Add/Remove Software applet of the control panel
Configure Windows System Restore	Open the configuration of the Windows system restore, which can consume a significant amount of disk space on a system.
Empty Recycle Bin	Empties the recycle bin of Windows
Defragment Disks	Open the Windows defragmenter
Connect Network Drive	Opens a window that allows you to connect a network drive to a drive letter (Professional Edition only)
Options	Shows the Options dialog.

## 12.9 Context Menu

#### File System Tree

When you right-click on a folder or file in the tree on the left, TreeSize Professional will display the Explorer context menu. Additionally you will find the following menu items in the TreeSize Professional submenu.

	TREESIZE	"B"	Expand
	Apply NTFS Compression Decompress New Folder Ctrl+N	8	Update this Branch Shift+F5 Update this Folder (non recursively) Find Deepest Nesting
C	Open	-	Remove From TreeSize (temporarily)
S	hare with Restore previous versions		Exclude From TreeSize (permanently) Ctrl+- Search with TreeSize File Search
I	nclude in library		Copy Branch Data to Clipboard
S	end to	•	Export As
0	Cut Copy		Copy List of Files Copy Full Path to Clipboard
( () ()	Create shortcut Delete		
F	Properties		

Apply NTFS Compression	Compresses the entire directory branch using <u>NTFS Compression</u> . TreeSize Professional updates its statistical data while it compresses the branch. This operation can take a long time, depending on the amount of data that needs to be compressed.
Decompress	Decompresses all files in the selected directory branch for which NTFS compression is turned on. This operation can be used to reverse the above operation.
New Folder	Creates a new folder in the selected folder
Expand	See below
Update this Branch	Updates the statistical data for the selected subdirectory. This is usually faster than updating the whole directory.
Update this Folder (non recursively)	Reads the contents of this directory again and updates the statistics, but does not recurse into subfolders.
Find Deepest Nesting	Searches the folder with the deepest directory level. This can be useful to find folders that violate the path limit of Windows of 255 characters.
Remove from TreeSize (Temporarily)	Using this menu item you may remove a folder from TreeSize Professional and its calculations. The removal is only temporary, the folder will not be deleted physically from the disk. Thus it will show up again during the next scan.
Remove from TreeSize (permanently)	The selected folder will be permanently removed from TreeSize Professional and its calculationsby adding it to the <u>Exclude list</u> .

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Search with TreeSize File Search	Opens the <i>TreeSize Professional</i> File Search and makes this folder the active folder for searches.
Copy Branch Data to Clipboard	Copies the collected statistical data of all folders in the selected directory branch to the clipboard
Export As	Allows to export this subbranch of the file system to Excel, HTML or text file, similar to $\underline{File > Export}$ .
Copy List of Files	Copies a list of all files in the selected directory branch to the clipboard
Copy Full Path	Copies the path of the current directory to the clipboard as text.

to Clipboard

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The topmost item of each scanned folder has a different context menu which looks like this:

2	Explore Properties New Folder Ctrl+N Windows Explorer Update F5 Update this Folder (non recursively)	
	Export Data Find Deepest Nesting Merge in Virtual Root Remove from TreeSize Search with TreeSize File Search Scan Always on Startup Show all Errors	To Level 1 To Level 2 To Level 3 To Level 4 Expand Folder over: 10 MB Remove Folder <10 MB
2	Apply NTFS Compression Decompress	

Open	Opens the selected folder in a simple Windows Explorer window
Explore	Opens the selected folder in a Windows Explorer window with directory tree on the left
Properties	Shows the Properties dialog of the folder or drive
New Folder	Creates a new folder
Windows Explorer	Shows the context menu of the Windows Explorer for the scanned folder or drive.
Update	Rescans the current directory branch
Update this Folder	Reads the contents of this directory again and updates the statistics,

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(non recursively)	but does not recurse into subfolders.
Expand	See below
Export data	See Export Submenu
Find Deepest Nesting	Searches the folder with the deepest directory level. This can be useful to find folders that violate the path limit of Windows of 255 characters.
Merge in Virtual Root	Using this feature it is possible to group scans under a virtual root folder. This virtual root folder shows a summary of all scans that are part of this group. This way you can merge different scans together e.g. for printing or exporting.
Remove From TreeSize	This menu item will remove the currently selected scan from the view.
Search with TreeSize File Search	Opens the <i>TreeSize Professional</i> <u>File Search</u> and makes this folder the active folder for searches.
Scan Always on Startup	If this option is is activated, TreeSize Professional will start scanning this folder if it is started and no other paths are passed on the <u>command</u> <u>line</u> or from the <u>Explorer context menu</u> .
Show All Errors	Displays a list with all errors that occurred during the scan, e.g. directories that could not be listeed due to missing access rights.

#### The Submenu "Expand"

Full Expand	Expands the selected folder and recursively all its sub-folders
To Level X	Selecting this menu item will show the first x levels of the current folder
Expand Folder over	This menu item allows you to expand only those folders in the tree which are larger than a certain size.
Remove Folder <xxxmb< td=""><td>Selecting this menu item will remove all folders which are smaller than a certain size from the directory tree.</td></xxxmb<>	Selecting this menu item will remove all folders which are smaller than a certain size from the directory tree.
Set Size	Allows you to specify the folder size for the above two operations

#### Context Menu on the "Details" tab

The list on the Details tab shows the Windows Explorer context menu when you right-click on an item. Additional a submenu labeled TREESIZE is included which shows all information that is available about the selected item including the columns that are currently not activated. This submenu may also be used to activate or deactivate columns.

# **13 Options**

This Options dialog of TreeSize Professional can be opened using the appropriate menu item in the View menu. It allows you to change the view and scan options and consists of the following tabs:

- <u>View</u>
- Scan
- Include / Exclude
- Columns / Export
- Startup
- <u>Miscellaneous</u>
- Age of Files
- File Groups

## 13.1 View Tab

Determine Icons based on File Extension onl	If this option is turned on, then TreeSize Professional uses the default icon for files based on the file extension only. This is much faster, especially on network drives, because Windows opens many file types in order to see if there are any icons inside. By default, this option is turned on.
Different Colors for Compressed Files and Folders	If this option is turned on, compressed files on an NTFS volume are shown in a blue color. Folders that are partially compressed will have a dark blue color, files and folders that are entirely compressed will show up in a light blue color. For more information on file based compression see <u>Notes on NTFS</u> .
Show Folders containing Paths >255 chars in red	Folders that contain objects which have a path that exceeds 255 characters will be shown in red color. This is useful for finding file system structures that exceed the Windows <u>MAX_PATH</u> constant; many tools and the .NET framework have problems with these long paths. Using the <u>custom search</u> of the TreeSize Professional File Search you also can search for such files.
Show Long Tooltips in the Tree	If this option is active a tool tip window with detailed information will be shown if the mouse cursor pauses over a folder for a while. This is useful if you want to take a look at some detail information of a folder without switching to the Details tab.
Show Gradient Bars in Directory Tree	If this option is active, below a folder in the directory tree now a gradient bar is shown that indicates the size of the folder in relation to the entire scanned file system tree.
Show Time with Date Values	This option allows you to decide if time values should be shown with the last access, last modified and the creation date.

Automatically Update Right Pane During Scanning	If this option is turned on the right pane of the main window will be updated from time to time. This allows you for example to watch the bars of a chart growing while scanning large drives. Use the drag bar to set the interval of the updates.
Number of Folders in the Recently Used list	Adjust the number of recently scanned folders that TreeSize Professional should remember for quick access in the the pull-down box in the toolbar.
Bold Factor	If the size of a folder is greater than the set percentage or absolute value of the complete size of the scanned folder, the folder label will be shown bold. This allows you to quickly find the largest folders. If you don't want bold folder labels, choose "100%".
Use bold Text and Colors for Printed Reports too	Use this checkbox to define if the text formattings like bold (see above) or the colors when <u>comparing</u> scans should be applied to printed reports too.

## 13.2 Scan Tab

The settings on this page affect the behaviour of TreeSize Professional during scanning. Changes on these settings usually require a rescan of the currently scanned drives and folders to take effect.

Follow External Mount Points and Symbolic Links	You can decide if TreeSize Professional should follow symbolic links and mount points (see <u>Notes on NTFS</u> for additional information) that point to other drives or folders on other drives. Links that point within the scanned directory will never be followed in order to prevent circular references and folders from being counted twice.
Track NTFS Alternate Data Streams and Hard Links	With this option you can control, if TreeSize Professional should check each file if it is just a <u>hard link</u> to another file or if contains <u>alternate_data_streams_(ADS)</u> . The will result in more accurate results for the allocated space, but will also slow down the speed of a scan.
Show Error Messages	Use this option to decide if TreeSize Professional should show error messages during scanning. If you for example scan a network drive on a Windows server and don't have reading access to all folders, Windows will pop up an error message for every unreadable folder. If you don't want the scanning process interrupted by these message boxes, deselect this check box.
Create Statistics on File Extensions	If this check box is activated TreeSize Professional will additionally generate a statistics for the file extensions in each subtree. The results can be viewed on the Extensions tab of the main window, where you are also able to filter the values in the directory tree by one file type.
Create Statistics on File Owners	If this check box is activated TreeSize Professional will additionally generate a statistics for the file owners in each subtree. The results can be viewed on the Users tab of the main window where you are

also able to limit the values in the directory tree to one of the users. Since it is necessary to query the owner of each file, this option will slow down the scanning process if activated.

- Thread Priority Allows to define the priority with which the threads are running that are scanning the hard disk. Idle means that they use the CPU will be used only if no other threads are using it. Idle is a good setting if you want to make sure that a scan with TreeSize Professional has no impact on the performance of the PC or server. The default and recommended value is "lower priority". Choosing higher priority will result in the scan threads having a higher priority than the thread of the user interface, which can make the user interface unresponsive during a scan. This setting is also used for the threads of the <u>TreeSize File Search</u>.
- Maximum Number of Threads This option lets you define the maximum number of threads that will be started for a scan. If the system load is high, fewer than the maximum number of threads may be started.
- User Defined Cluster Size Use this option to see what the values for allocated and <u>wasted</u> <u>space</u> would be with a different cluster size or file system. Changing this option will require a rescan. This options will not be saved when you exit TreeSize Professional in order to avoid wrong results when using it the next time.

#### 13.3 Include / Exclude Tab

The **Include/Exclude** tab allows you to filter the scanned files and folders:

PatternsIf you need information about e.g. certain file types only, you can<br/>specify a filter here. You may use multiple filters separated by<br/>semicolons. So if you for example want to see how much space your<br/>executable files and their libraries occupy, use the filter "\*.exe \*.dll"<br/>here. If you want to include all files leave the field blank. You can also<br/>specify a fragment of a path, e.g. "\*\My Videos\\*", this can be useful<br/>for getting the size of only certain folders.<br/>Changing this option will make a rescan necessary. This options will<br/>not be saved when you exit TreeSize Professional in order to avoid<br/>wrong results when using it the next time.

Include only Files Created This option is quite self-explanatory and can be useful to calculate in the Past XX Days the size of backups or to identify "heavy growing" folders.

Include only Files with<br/>Archive Bit SetThis option is useful if you are interested in the size of a backup that<br/>will be performed on the basis of the Windows Archive Bit.

Excludes If you want to exclude certain files or folders from scanning, add matching patterns here. A pattern may look like "Windows" or "\*. tmp". Files or folders matching one of the specified patterns will be ignored during a scan.

## Exclude Offline Files

This option allows to exclude files that are marked as Offline. Offline files are often not physically present on the disk or are only cached temporarily on the local disk.

Startup	Miscellaneous		Age of Files	File Groups
View Scan Include /		ide / Exclude	Columns / Export	
ncludes				
Patterns:				
📄 Include o	nly files <u>c</u> reate	d in the pa	st: 0	≑ days
nclude <mark>o</mark>	nly files with A	rchive attr	ibute set	
				3
Excludes			1200	
			A	dd Pattern
			R	emove
Exclude (	<u>O</u> ffline Files			

## 13.4 Columns / Export Tab

The Columns tab allows you to choose the columns that should be visible. You may choose the columns separately for each "output media" (details view, Excel export, printed report, text file, CSV-Datei) by first selecting the appropriate entry in the pull-down box on the top. The following columns are available:

Name	The name of the folder or file
Full Path	The full path, including the object's name
Size	The size of the object
Allocated	The space that the object currently occupies on disk (see also: <u>Wasted</u> <u>Space</u> and <u>NTFS Compression</u> )
Files	The number of files in a directory branch

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Folders	The number of sub-folders in a directory branch
Wasted	The amount of space that is wasted by the file system (see also: $\underline{\text{Wasted Space}}$ )
% of Parent	The amount of space in percent that a folder or file occupies relative to its parent folder
Last Change	The last change date of the object. TreeSize Professional calculates the last change and last access date more precisely than the Windows Explorer, because it takes all files in all sub-folders into account. So the values shown in the Windows Explorer may differ.
Last Access	The last access date of the object
Compr.	The size in percent by which an object has been compressed using the built in compression of the file system (see also: <u>Notes on NTFS</u> )
Owner	The user name that owns a folder or file
CD-ROM Size	The amount of space that an object would occupy on a CD or DVD with ISO file system
Current Date	The current date. This column can be useful if you want to process the collected data, e.g. in a database.
Attributes	The file attributes Read-only (R), Hidden (H), System (S), Archive (A), Offline (O). Files containing NTFS alternate data streams are shown with an asterisk (*) here.
File Type	The file type, e.g. "Text file"
Dir Level	The level of an object in the file system. This value can be useful when processing the collected data.
Creation Date	The date at which the object has been created
Path (Without Name)	The full path to object, not containing the object's name
Avg. File Size	The average size of a file in a folder
Permissions	The access permissions of the object in the format: Username1: +/-R +/-W +/-X Username2: where "+" means the right is granted and "-" means that the right is denied. "R" stands for read access and "W" for right access. For files "X" means the right to execute, for directories the right to list the directory content.
Inherited Permissions	These are the permissions inherited form the parent directories.
Own Permissions	These are the own permissions defined especially for this file system object.
File Version	The version number that is included in EXE, DLL OCX and similar binary files
Title of Scan	By default the title (volume label and drive letter) of a scan. It can be changed using Set Title in the <u>File menu</u> . This value can be useful for

archiving purposes.

MS Office Author This column shows the author information that is extracted from the meta data of the file, taken from MS Office and compatible files.

MS Office Last Save Date This column shows the date on which the file was saved the last time, taken from MS Office and compatible files. This information is extracted from the meta data of the file.

Hard Links The number of <u>hard links</u> to a file. Empty in case of folders.

Error In case a folders could not be scanned, this column will contain the message of the error that occurred.

- MD5 Checksum Shows a string representation of the MD5 checksum for this files content.
- SHA256 Checksum Shows a string representation of the SHA256 checksum for this files content.
- Extension The extension of the file, e.g. ".txt" for a text file.
- Path Length Shows the number of characters included in the full path of this file or folder.
- Alternate DataShows the size hold by "<u>Alternate\_Data\_Streams</u>" for this file (notStreamsavailable for directories).

**Note:** The column settings of the text export also effect the export to clipboard!

The column that should be visible in the details list can easily be selected by right-clicking on the column header:

ame	Full Path	Size	Allocated *		1.220000	Change	Last Access
DataStore	C:\Windows\SoftwareDistrib	45.1 MB	45.1 MB	~	Name	0/2010	11/5/2009
Download	C:\Windows\SoftwareDistrib	36.6 MB	36.8 MB	~	Full Path	8/2010	1/20/2010
ReportingEvents.log	C:\Windows\SoftwareDistrib	0.2 MB	0.2 MB	~	Size	0/2010	8/11/2009
WuRedir	C:\Windows\SoftwareDistrib	0.0 MB	0.0 MB	~	Allocated	5/2009	11/5/2009
AuthCabs	C:\Windows\SoftwareDistrib	0.0 MB	0.0 MB	~	Files	\$/2009	1/20/2010
SelfUpdate	C:\Windows\SoftwareDistrib	0.0 MB	0.0 MB	-	Folders	5/2009	8/11/2009
PostRebootEventCac	C:\Windows\SoftwareDistrib	0.0 MB	0.0 MB	1	Wasted		
				5	% of Parent		
				-	Last Change		
				1	Last Access		
				Ż	Compr.		
				1	Owner		
				-	CD/DVD size		
					Current Date		
					Attributes		
				1	File Type		
					Dir Level		
					Date Created		
					Path (Without Name)		
					Avg. File Size		
					Permissions		
					File Version		
					Title of Scan		
					MS Office Author		
					MS Office Last Save Date		
					Hardlinks		
					Error		
					Full User Name		

## Export

Full Export	With this option activated, the whole file system tree that was scanned will be exported or printed.
Expanded Folders Only	Only those parts of the file system tree will be exported that are expanded on the left pane of the main window.
Header Line	Use this option to control if a header line containing the column headers should be added to the exported file or the printed report.
Units	If the check box "Include in Export" is checked, units like "KB", "MB", or "%" will be included in the exported data. Uncheck this option if you would like plain values to be exported. Without the units the thousands separators will also be omitted, which simplifies further processing of exported values. Check the check box "Always Use Byte Values" if you would always like plain byte values to be exported, independent of the currently used unit.
Default Export File	Here you can specify an Excel file into which exported data should be written by default (Professional Edition only).
Column Width	This option is only available for printed reports and allows you to adjust the column width of the column that is currently selected in the list above.

#### 13.5 Startup Tab

On this tab you can choose if TreeSize Professional should always be started with administrative privileges. You can further define what TreeSize Professional should do when it starts without a path to scan. It may scan a list of fix paths, it may scan the paths that were active the last time it was used, or it may simply do nothing, which is the default behaviour.

View	View Scan		de / Exclude	Columns / Export	
Startup	Miscellar	neous	Age of Files	File Groups	
Start As Adm	inistrator start this applic	ation as a	dministrator		
Action at App	lication Start				
When starting	the applicatio	n without a	a path to scan, then		
O nothin	Ig				
Scan the	same paths as	s last time			
	ecan these nat	he:			
Aways	scan mese par				
t at a					

### 13.6 Miscellaneous Tab

This tab allows you to import/export your user settings and to configure the shell extensions of TreeSize Professional for the Windows Explorer.

- Settings Here you can export your TreeSize Professional user settings or import user settings that were exported before. Additionally you may reset your user settings to the factory settings.
- Explorer Context Menu With the first checkbox you can decide if TreeSize Professional should appear in the context menu of folders in the Windows Explorer. A click on this menu item will then start TreeSize Professional which will start scanning the selected folder immediately.

The second checkbox allows to create an additonal context menu entry

that starts the TreeSize Professional File search.

Explorer Column Use this option to enable or disable the <u>"TreeSize" column</u> for the detailed view of the Windows XP/2003 Explorer which shows not only the file sizes but also the folder sizes. If enabled you can control the unit and the number of decimals here. The Explorer column is not supported under Windows Vista or higher because Microsoft removed the interface for adding columns to the Windows Explorer. Note: The TreeSize column can only be configured here if you choose "

Install TreeSize column for Windows Explorer" within the TreeSize Installation. Otherwise this option is disabled.

A 10 M	Scan	Include	e / Exclude	Columns / Export
Startup	Miscellan	eous	Age of Files	File Groups
ettings				
<u>E</u> x	port	Impo	rt	<u>R</u> eset
xplorer Col	ntext Menu TreeSize in Expl TreeSize File Se	lorer Contex earch in Expl	t Menu of current orer Context Menu	user i of current user

#### 13.7 Age of Files Tab

This tab allows you to configure the intervals that are used to generate the <u>chart with the files</u> <u>ages</u>. You may change the limit of each interval, add additional intervals using the '+' button, or remove intervals using the '-' button. You can turn off the creation of the File Ages statistics using the check box on top of the list. This will slightly reduce the memory usage of TreeSize Professional. Furthermore you can decide if the file ages should be determined based on the last access date, the last change date or the file creation date; the default setting is the last change date.

View	Scan	Scan Include / Exclude		Columns / Export
Startup		Miscellaneous		Age of Files
🗸 Create S	tatistics for age	of files:	Last Chan	ge Date
1	Day(s)	•	]	+ -
1	Week(s)	) 🗕	]	+ -
1	Month(s	) 🔻	]	+ -
6	Month(s	) 🔻	]	+ -
1	Year(s)	•	]	+ -
2	÷ Year(s)	-	]	+ -

## 13.8 File Groups Tab

Use this tab to configure the groups of file types which can be shown on the "<u>Extensions</u>" tab. You may add new groups, remove groups, modify the patterns of a group or change the caption or description.



## 14 File Search

The TreeSize Professional File Search can be started through the Windows "Start" menu or the 15:01 "File Search" menu and offers the ability to search for obsolete files are perform a fully customizable search.

- The File Search Window
- File Search Menu
- File Search Options
- Biggest File Search
- Oldest File Search
- <u>Temporary File Search</u>
- Internet File Search
- <u>Duplicate File Search</u>

- Custom File Search
- Moving found files

#### 14.1 The File Search Window

The TreeSize Professional File Search can be started through the Windows "Start" menu or the 15:01 "File Search" menu and allows you to search for big, old and temporary files. You will find the following tabs on the top of the window:

- Biggest Files This page allows to search for the biggest files on your hard disk. You can specify a minimum size in kilobytes or megabytes. All files larger than this value will be shown in the list.
- Oldest Files This page allows you to search for files that have not been changed or accessed since a certain date. You can limit the search to entire folders. In this case only folders will be listed in which all files match the search criteria. This allows you to identify branches of the file system that are not in use any more.
- TemporaryThis page allows you to search for temporary files. Use the Configure button to<br/>customize the settings of the Temporary File Search.
- Internet Files This page allows you to search for temporary internet files like the files in the cache of the browsers Netscape Navigator and Internet Explorer. The search for temporary internet files can be automated with the <u>command line option</u> / SEARCH:Internet.
- Duplicate Files This page lists files which are on your disk more than once. You can choose if duplicates should be indicated by equal name, size and last change date, or by a compare of the md5 checksum of their content. Comparing the file content provides more accurate results, but the search will take longer. A minimum size speeds up the compiling of the list and prevents you from looking through many small files. A check box allows to control whether or not the <u>exclude filter</u> should be used. The context menu offers the possibility to replace duplicate files with hard links.
- Custom Search This page allows you to define a fully customizable file search. You can filter by filename, date, size, attributes and owner.
- Scan Options Here you can choose which drives and which of the above search types will be included in the search. You can add additional paths to the list by pressing the button below the list. All checked drives will be included in the search. Network drives are only supported in the Professional Edition.

You will find the following buttons on the right side of the window:

Start This button will start the search. You can now already look at the partial search results by selecting one of the tabs. You will hear an acoustical signal when the search is finished.

Stop	Stops the currently running search
Save Results	This button allows you to save the search result of the currently active search type to a text or CSV file. The save dialog has an option to save all result lists (instead of the active one only), and an option to save the checked files only. Only the currently visible columns will be saved.
Move Checked	This button allows you to <u>move all files</u> in the lists which are check- marked to the left of their file name to a position in the file system that you may specify.
	If you choose a file system location all files will be moved there under preservation of the file system structure. You may also move the checked files to a ZIP file. Optionally all performed operations can be written to a log file.
	<b>TIP</b> : You can easily check a group of files by keeping the space bar pressed or by selecting multiple files with the Shift or Ctrl key and then use the context menu.
Deduplicate Checked	This button is only visible on the "Duplicate Files" tab. It replaces all checked duplicates with links to the same file. If the files are on the same partition, then all files will be hardlinks to the same content. If creation of a hardlink is not possible, a symbolic link is used under Windows Vista and later. If this is not possible too, a Windows shortcut will be created instead as fallback.

With the File Search Menu items you can save and load your search settings (*File* menu), start and abort searches (*Search* menu) or customize the information shown in the result lists (*View* Options).

ggest riles Oldest riles	Temporary File	s Internet Files	Duplicate Files Se	earch Options	
Drives and Paths to Searc	h			Enabled Search Types	
Name	Total Size	Free Space	% Free Space	Biggest Files	Start Searching
C:\Users\Schm		2.60 GB	7%	✓ Oldest Files	0
System (C:)	39.8 GB	2.60 GB	7%	Temporani Eler	Gon Searching
SpamAssassin	78.0 GB	29.5 GB	38 %	V remporary rites	Scon Sconeruni
V 🗣 Misc (S:)	58.4 GB	23.9 GB	41 %	Internet Files	
🔄 🚅 Data (R:)	1.95 TB	911 GB	46 %	Duplicate Files	
				Custom Search	
					Save Results
Add (UNC) Path			Province and Add Pat	+	
Add (Qrive) Paul			browse and Add Pat		E-
					Move Checked
Files / Folders to Exclude					
F				*,csv	
V *.exe					
✓ *.exe ✓ *\SRecycle.Bin*				Add Pattern	J
<ul> <li>✓ *.exe</li> <li>✓ *\SRecycle.Bin*</li> <li>✓ *\~Snapshot\*</li> </ul>				V Pamoura	
✓ *.exe ✓ *\SRecycle.Bin* ✓ *\~Snapshot\* ✓ *\RECYCL*				VEUIOAE	
<ul> <li>✓ *.exe</li> <li>✓ *\SRecycle.Bin*</li> <li>✓ *\~Snapshot\*</li> <li>✓ *\RECYCL*</li> <li>✓ *\SYSTEM*</li> </ul>				VENIOVE	
<ul> <li>✓ *.exe</li> <li>✓ *\SRecycle.Bin*</li> <li>✓ *\~Snapshot\*</li> <li>✓ *\RECYCL*</li> <li>✓ *\SYSTEM*</li> <li>✓ *\WINSXS*</li> </ul>				Exclude Files that have	
<ul> <li>✓ *.exe</li> <li>✓ *\SRecycle.Bin*</li> <li>✓ *\~Snapshot\*</li> <li>✓ *\RECYCL*</li> <li>✓ *\SYSTEM*</li> <li>✓ *\WINSXS*</li> <li>✓ *DEFAULT.PIF</li> </ul>				Exclude Files that have changed in the past	
<ul> <li>✓ *.exe</li> <li>✓ *\SRecycle.Bin*</li> <li>✓ *\~Snapshot\*</li> <li>✓ *\RECYCL*</li> <li>✓ *\SYSTEM*</li> <li>✓ *\WINSXS*</li> <li>✓ *DEFAULT.PIF</li> <li>✓ DESKTOP.INI</li> </ul>				Exclude Files that have changed in the past	

## 14.1.1 File Search Menu

File	
Load Search Options	Loads previously saved search options from a XML-file.
Save Search Options	Saves the current search options in a XML-file.
Reset Search Options	Resets the current search options to their default values.
Save Results	Saves the results of the latest search.
Export Paths	Exports search paths in a txt-file.
Import Paths	Imports search paths from a txt-file.
Copy List to Clipboard	Copies the currently visible result list to the clipboard. Use the right click menu of the list to copy only the selected items.
Print List	Prints the currently visible result list.
Print Setup	Allows to configure the printer and its settings.

66	TreeSize Profess	sional			
E	xit	Exits the program			
Ec	lit				
С	ut	Removes the selected items and copies them onto the clipboard.			
C	ору	Copies the selected files and folders to the clipboard. To put them in a new location, use the "Paste" command.			
Check All		Check-marks all items in the active result list.			
Uncheck All		Uncheck-marks all items in the active result list.			
Check All matching Patterns		heck-marks all items in the currently visible result list, for which the full ath matches customizable patterns. he patterns can be configures in a shown form.			
Uı Pa	ncheck All matching atterns	Uncheck-marks all items in the currently visible result list, for which the full path matches customizable patterns. The patterns can be configures in a shown form.			
Se	elect All	Selects all items in the list.			
In	vert Selection	Inverts the selection.			
Se	earch				
St	tart Searching	Starts the file search.			
St	top Searching	Stops the file search.			
Μ	ove Checked Files	Moves check-marked files to a destination of your choice. Every movement can be logged.			
Vi	ew				
Vi	sible Columns	Let you set the visible columns in the search result list field. They include :			
	Path	- the path of a file			
	Size	- the size of a file			
M	File Type / atching Criteria	- the file type or other matching criteria you looked for			
	Last Access	- the date of the last access			
	Last Change	- the date of the last change			
	File Owner	- the user name of the file owner. Please Note : Querying file owners			

	is a slow operation under Windows and can be turned off here if not needed.
Attributes	- the attributes of the file (Details).
Version	- the version number (If included in the file)
Permissions	- The access permissions (Details).
Creation Date	- The date when the file was created.
Author	- The author included in many MS Office documents.
Size Unit	Determines the unit, in which file sizes will be mentioned
Bytes	- all sizes are given in Bytes
KB	- all sizes are given in Kilobytes
MB	- all sizes are given in Megabytes
GB	- all sizes are given in Gigabytes
Mixed Units	- uses the next appropriate size unit
Decimals	Determines the number of decimals shown in a displayed number
0	- shows no decimals
1	- shows one decimal
2	- shows two decimals
3	- shows three decimals
Compressed Files	Determines, if shown file sizes are based on normal file sizes or on compressed file sizes.
Use File Size	- uses normal file sizes
Use Compressed Size	- uses compressed file sizes
Follow Mountpoints and Symbolic Links	You can decide if TreeSize Professional should follow symbolic links and mount points (see <u>Notes on NTFS</u> for additional information) that point to other drives or folders on other drives.
Check Search Results by default	Activate this option if you want all results appearing in the results list being checked automatically.
Show Long Tooltips in Lists	Enables long tool tips in lists
Show Time with Date Values	Allows to define, if the time should be shown along with date values. When cleaning up old files, often just the date matters, but not the time - omitting the time makes the result lists easier to read.

Tools	
Empty Recycle Bin	Empties the Recycle Bin (the trash folder).
Start File Search as Administrator	Starts the TreeSize Professional File Search again and request admin privileges for it.
Schedule Current Search Options	Opens a dialog that allows to create a Windows scheduled task for the current search options.
Manage Scheduled Tasks	Allows to edit previously created Scheduled Tasks.
Help	
File Search Help	Opens the FileSearch specific Help file
File Search F.A.Q.	Opens the FileSearch specific F.A.Q.
Check for Update	Checks for a newer version of TreeSize

### 14.1.2 File Search Options

About...

The tab **Scan Options** allows you to configure the file search in different ways.

Provides information about TreeSize

### **Drives and Paths to include**

Use the check boxes in front of each drive to select which paths should be searched by the file search. You can add additional paths and network drives using the buttons below the list. The first button will allow you to type in a path, the second one will open a folder browser dialog.

News			Table	Envi Corre	0 France -	Rispert Files
Name Syr	stem (C:) /D Drive (D:) \ \Users\	/MADDITIO	39.8 GB	648 M	e % Free Spa B 2 %	<ul> <li>Oldest Files</li> <li>Oldest Files</li> <li>Temporary Files</li> <li>Internet Files</li> <li>Duplicate Files</li> <li>Custom Search</li> </ul>
Add (UNC) Path			III .	Browse	and Add Path	Note: Files that are currently in use will not be displayed.
File Search	69					
-------------	----					
-------------	----					

You can search entire servers or PCs by using their UNC name like \\SERVER. You can search your entire domain by using its UNC name, e.g. \\DOMAIN. You can even search you entire network by choosing the network neighborhood of Windows in the directory browser that appears after pressing *Browse and Add Path*. TreeSize Professional automatically browses for PCs and all shares on them (including hidden shares) and performs the search on all shares that it finds.

#### Enabled Search Types

Use the check boxes in front of each item to enable or disable certain <u>search types</u>. Each search type will be represented by a separate register.

#### Files / Folders to Exclude

The file search was designed to identify obsolete or very large files in order to clean up a system. Certain files like system files should however not be deleted because they are necessary for the operating system or other software to run. Files known to be important for a system can be added to the exclude list here and will then not be shown in the results any more. New entries in this list can be easily added using the right click menu of the result lists.



Additionally you may exclude files that have been changed in the past hours. If a file has been changed recently there is a high probability that the file is not truly obsolete.

**Please note:** This option will by default NOT be applied to the duplicate file search and to the custom file search. However, you can enable it by check-marking the corresponding checkboxes on the registers of the duplicate search and the custom file search.

#### 14.2 Biggest File Search

This page allows to search for the biggest files in your selected path(s) / drive(s). You can specify a minimum file size in kilobytes or megabytes. All files larger than this value will appear in the search result list.

Search for files bigger Defines the minimum size for wanted files. than...

Like in all searches, you can move all files in the result list which are check-marked to the left of their file name, to a position in the file system that you may specify., by using the <u>Move</u> <u>Checked</u> button.

#### TreeSize Professional

#### 14.3 Oldest File Search

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This page allows you to search for files in your <u>selected path(s) / drive(s)</u> that have not been changed or accessed since a certain date. You can limit the search so that it returns entire folders only. In this case only folders will be listed in which all files match the search criteria. This allows you to identify branches of the file system that are not in use anymore.

Search for files [not Defines, at which time stamp TreeSize Professional will be looking: changed / not accessed] last access Date or last write date.

since Define here for how long a file must have been not opened or changed to be shown in the result list. You can either use a certain date or a number of days.

Return complete folders Returns as result only folders, which (including all sub-folder and only files) were not accessed/changed since the given date.

Like in all searches, you can move all files in the result list which are check-marked to the left of their file name, to a position in the file system that you may specify, by using the <u>Move</u> <u>Checked</u> button. The <u>Custom File Search</u> offers more sophisticated filter options for the timestamps of files.

#### 14.4 Temporary File Search - Configuration

This page allows you to search for temporary files. Use the **Configure** button to <u>customize the</u> <u>settings</u> of the Temporary File Search.

Biggest Files Oldest Files Temporary Files Internet Files Duplicate Files Custom Search Scan Options

Search for files containing: "\TEMP\\* \*.TMP \*~.\* \*.~\* \*.?~ \*.OLD FILE\*.CHK CHKDSK.CHK \*.\$\$\$ \*.--- ~\* ...

FILE*.CHK	*	*.temp	Include files with temporary attribute	×
✓ CHKDSK.CHK ✓ *.SSS ✓ *		Add Pattern	Include files that do not belong to a valid account (slow)           Include Links without a valid target path	
V ~* SNTUninstall*S	•	K Remove	Include Shortcuts from Recent Documents Folder	

#### Patterns

The main part of the Temporary File Search is based on typical filename patterns. You may customize these patterns using the **Customize** button on the top of the Temporary File Search. You may change or delete existing patterns as well as add new patterns. Using the check boxes on the left, you can deactivate certain patterns without deleting them.

Wlldcards for pattern building

- \* Replaces none or arbitrarily many alphanumeric characters
- ? Replaces exactly one alphanumeric character

Include files with temporary Applications that create a temporary file may inform the operating

attribute	system with a special flag about this fact. With this check box activated TreeSize Professional will include such files in the search results.
Include files that do not belong to a valid account	If a Windows account is deleted, files belonging to this account are not deleted automatically and may keep occupying space on the hard disks. With this check box activated TreeSize Professional will include such files in the search results. Since it is necessary to get the owner of each file on the searched disks, activating this option will slow down the scanning process.
Include Links without a valid target path	With this check box activated TreeSize Professional will check for .LNK and .PIF files, if the destination path exists. If this is not the case such a file will be included in the search results.
Include Shortcuts from Recent Document Folder	If activated, TreeSize Professional will check for shortcuts from the recent documents folder.

Add	Adds a new pattern in the edit field into the list
Delete	Deletes the pattern selected in the list field on the left.

Like in all searches, you can move all files in the result list which are check-marked to the left of their file name, to a position in the file system that you may specify by using the <u>Move Checked</u> button.

#### 14.5 Internet File Search

This page allows you to search for temporary internet files like the files in the cache of the browsers Internet Explorer, Firefox, Opera and Netscape Navigator. The search for temporary internet files can be automated with the <u>command line option</u> /SEARCH:Internet.

Include cookies Cookies will also be searched and listed.

Like in all searches, you can move all files in the result list which are check-marked to the left of their file name, to a position in the file system that you may specify, by using the <u>Move</u> <u>Checked</u> button.

#### 14.6 Duplicate File Search

This page lists files which seem to exist more than once on your disk. Such redundant files increase the allocated space of your disk, unnecessarily.

You can choose between different strategies on how to identify duplicate files. Here is a list of these strategies:

Compare Size, Name and Date	Choose this to identify duplicate files by equal name, size and last change date. This is much faster than using checksums to indicate duplicates, but it is also less accurate.
Compare using MD5 Checksum	When using MD5 checksums, a so called hash value is calculated based on the contents of each file. Files with the same content will have the same hash value, files with different content will almost certainly have different values. Empty files are ignored, since there is no content to compare. This is more accurate then comparing files by their name, size and date but it is also much slower.
Compare using SHA256 Checksum	This works like the MD5-Checksum mechanism, but uses the SHA256 algorithm instead of MD5. While it is very unlikely that the MD5 hash algorithm produces the same hash value for different files, the SHA256 algorithm further reduces the statistical risk of

However, the SHA256 algorithm is significantly slower than MD5.

Compare by Name only Choose this to find all files with equal file names only. This is not really a strategy to identify true duplicate files, but this compare type may be helpful when you are searching for certain redundancies or undesired copies (E.g.: Documents which are copied and modified locally).

such hash collisions.

There are some additional options to customize the duplicates file search for your own desires:

Minimum Size in KB	Defines the minimum size for files, which are subject to the duplicates search. Note: Using a minimum size will reduce the number of files to compare. This will increase the speed of the search, especially when comparing by checksums.
Use Exclude Patterns	If checked, the exclude patterns defined on the " <u>Search Options</u> " tab will be used. Activating this option will also reduce the number of files to compare and so lead to a performance increase.
Ignore NTFS Hard Links	If checked, NTFS hard links will be ignored. This is important as <u>hard</u> links will otherwise show up as duplicates.

Like in all searches, you can move all files in the result list which are check-marked to the left of their file name, to a position in the file system that you may specify, by using the <u>Move</u> <u>Checked</u> button.

#### **Deduplicate:**

This button is located right beneath the "Move Checked" button and only visible if the "Duplicate Files" tab is selected.

Use this button to replace all checked but one duplicate file in a group by NTFS hard links to the one remaining file. This will reduce the disk space allocated by your duplicate files (See: <u>NTFS</u> <u>Hard links</u>). If you check only one file of a group, this file is replaced by a link to the "newest" (file with the latest last change date) unchecked file of this group.

In the shown configuration form you may choose a log file to log the performed replacements to. You can also decide here how to handle files on another hard disk, which cannot be replaced by NTFS hard links. You have the option to ignore those files or to replace them using <u>symbolic</u> links.

The context menu of the duplicate files list offers a feature named "Replace Duplicates by Hard Links". This function works the same as "Deduplicate", besides it handles selected files instead of checked files.

Important: Please note that TreeSize Professional does not offer the functionality to "undo" a deduplication!

All hard links pointing to the same file share the same "Security Description" (access permissions). Deduplication will apply a union set of permissions to the one physical remaining file. Considering this it is difficult to undo a deduplication manually.

#### 14.7 Custom File Search

This register allows you to define a fully customizable file search. You can filter by

- <u>file name</u>
- date
- size, attributes
- <u>owner</u>

The tabs of the custom file search that have filters set (= have actual influence on the search result) are marked by a bold text in their tab.

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#### 14.7.1 Custom File Search - Search for File Names

This sub-tab allows to define a customized file search for file names / file name patterns.

Biggest Files C	Idest Files	Temporary Files	Internet Files	Duplicate Files	Custom Search	Scan Option	s
Name	Find all 1	files whose full pat	hs match				abcd
Date	(wildcar	erns given here ds ? and * are allo	wed)				
Size / Attribute	s 🔽 Use	Exclude Patterns					A Add Pattern
Owner	Sear	ch Subfolders					<u>R</u> emove

Use Exclude Advises the program to use the list of <u>excluded file name patterns</u>. Files with a matching file name will be excluded from the search.

Search Advises the program to search not only the current folder but also all sub-folder of the current folder.

The listbox, the text field and the two buttons manage the patterns for the customized file name search.

Add Adds the pattern entered into the text field to the list of search patterns.

**Remove** Removes a selected pattern from the list of search patterns.

Wlldcards for pattern-building of file names:

\* Replaces none or arbitrarily many alphanumeric characters

? Replaces exactly one alphanumeric character

Not only parts of file name are allow (e.g. \*.doc), the patterns may also contain parts of directories (e.g. \*\Windows\System32\\*.exe or \*\Temp\\*.-old). To force the exact match (instead of a substring match) of a pattern, please put it in double quotes (e.g. "My Music").

To search for directories the "Directory" attribute in the Size / Attribute tab must be checked.

Like in all searches, you can move all files in the result list which are check-marked to the left of their file name, to a position in the file system that you may specify by using the <u>Move Checked</u> button.

#### 14.7.2 Custom File Search - Search for File Dates

This sub-tab allows to define a customized file search for files by looking for last change date / last access date / creation date. The searched time period can be determined by defining an interval between given dates or by defining a duration relative to the current date.

Defining a time period can be done by :

- stating a start date and an end date; the filters will find only files, with a matching date within these boundaries.

- stating only a start date; the filters will only find files, with a matching date past the given date.
- stating only an end date; the filters will only find files, with a matching date before the given date.
- stating, since how many days must have passed since the file was (not) changed / (not) accessed / (not) created.

Biggest Files	Oldest Files	Temporary F	iles Intern	et Files	Duplica	te Files	Cu	stom	Search	Scan Op	otions		
Name	Chang	ed 👻	between	1	1/ 1/2009		and		1/21/2010		Since:	0	Days
Date Circ ( Attribu	Acces	sed 🔻	between	1	/ 1/2009		and		1/21/2010		Since:	0	Days
Owner	Create	d 👻	between	1	/ 1/2009		and		1/21/2010		Since:	0	Days

Changed changed	/	Not	Looks for files, that were changed / not changed within a given period.
Accessed accessed	/	Not	Looks for files, that were accessed / not accessed within a given period.
Created created	/	Not	Looks for files, that were created / not created within a given period.
between	and		Limits for time intervals.
Since			Defines a duration, measured in days before today, that a file were (not) changed / (not) accessed / (not) created.

Like in all searches, you can move all files in the result list which are check-marked to the left of their file name, to a position in the file system that you may specify by using the <u>Move Checked</u> button.

#### 14.7.3 Custom File Search - Search for File Sizes and Attributes

This sub-tab allows to define a customized file search for files of a certain size / file with certain file attributes.

- Minimum File Size Sets the minimum file size of wanted files. The associated combo-box determines the unit size of the numerical specification.
- MaximumFile Sets the maximum file size of wanted files. The associated combo-boxSizedetermines the unit size of the numerical specification.

Full Path longer Sets the minimum size of a file's path length to be found. than:

Name	Minimum File Size:	0	🐥 🛛 Byte 🛛 🔻	Attributes	Any (except Directory)	
Date	M			🖲 set	Readonly	E
Size / Attributes	Ma <u>x</u> imum File Size:		Byte 🔻	⊚ <u>n</u> ot set	System	
Owner	<u>F</u> ull Path longer than	255	Characters		Compressed	-

#### **Attributes**

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You can also search for these file attributes and decide, if they should be set or not:

Any	The search results will not be filtered by the file attributes, no folders will be included.
Read only	Looks for the "read only" attribute in files.
Hidden	Looks for the "hidden" attribute in files.
System	Looks for the "system" attribute in files.
Archive	Looks for the "archive" attribute in files.
Compressed	Looks for the "compressed" attribute in files.
Encrypted	Looks for the "encrypted" attribute in files.
Offline	Looks for the "offline" attribute in files.
Temporary	Looks for the "temporary" attribute in files.
Alternate Data Streams	Lists only files that have / do not have <u>NTFS alternate data streams</u>
Reparse Points / Mount Points	Lists only objects that are (not) flagged as reparse points or mount points
Directory	Lists only directories.

Like in all searches, you can move all files in the result list which are check-marked to the left of their file name, to a position in the file system that you may specify by using the <u>Move Checked</u> button.

#### 14.7.4 Custom File Search - Search for File Owners

This sub-tab allows to define a customized file search for files of a certain owner / files, with a certain owner name pattern.

Biggest Files	Oldest Files	Temporary Files	Internet Files	Duplicate Files	Custom Search	Scan Option	S
Name	Find all	files whose owner	s				abcd
Date	match t (wildca	he owners given h rds ? and * are allo	ere wed)				
Size / Attribu	ites						
Owner							<u>R</u> emove

The ListBox, the text field and the two buttons to the left of the registers top right manages the search list for the customized files owner name search.

Add Adds the pattern in the text field to the list of search patterns.

**Remove** Removes a selected pattern from the list of search patterns.

Wlldcards for pattern-building of file owner names :

- \* Replaces none or arbitrarily many alphanumeric characters
- ? Replaces exactly one alphanumeric character

Like in all searches, you can move all files in the result list which are check-marked to the left of their file name, to a position in the file system that you may specify by using the <u>Move Checked</u> button.

#### 14.8 Move checked files

This button allows you to move all files in the search result lists, which are checked left of their file name, to a new destination that you may specify.

If you choose a file system location as target for the relocation process, all files will be moved there under preservation of the original file system structure. You may also move the checked files to a ZIP file. Optionally all performed operations can be written to a log file.

**TIP**: You can easily check a group of files by keeping the space bar pressed or by selecting multiple files with the **Shift** or **Ctrl** key and then use the context menu.

#### Move Operations:

Move checked files to Recycle Bin	Moves check-marked files directly to the Recycle Bin. To definitively delete these files, you have to empty the Recycle Bin.
Delete checked files from disk	Deletes check-marked files after a confirmation prompt has been displayed.
Move checked files to ZIP file	Moves check-marked files to a ZIP file you specify in the edit field bellow. ZIP files containing Unicode paths can only be unzipped properly by Unicode compatible ZIP tools like WinRar or WinZip (See: " <u>Unicode Zip files</u> ").
Move checked files to path or burn to disc	Moves check-marked files to the path you specify in the edit field bellow, or burns them to a writable media. Optionally the original directory structure will be preserved in the destination path. Optionally the security attributes can be copied as well. If this option is not active, the moved files will inherit the security attributes from the parent elements. A further option allows to leave shortcuts or link at the original position, see below.
Copy checked files to path or burn to disc	Copies check-marked files to the path you specify in the edit field bellow, or burns them to a writable media. Optionally the original directory structure will be preserved in the destination path. Optionally

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	the security attributes can be copied as well. If this option is not active, the moved files will inherit the security attributes from the parent elements.
Pass files to executable as parameter	For every checked file an executable file will be called and the full path of the file will be passed as parameter on the command line. The executable file may also be a batch file, a VBScript or something similar. The Windows Scripting <u>FileSystemObject</u> offers powerful and easy to use capabilities for file system and path operations.
Move Options:	
Delete empty directories after moving	Deletes all folders that have been emptied due to this move operation.
Preserve directory structure	If this option is activated, the file system structure will be kept at the destination. If this option is unchecked, all files will be moved into one folder. Note: Only available for "Zip" and "Move to path" operation.
Include directory with drive letter to avoid name collisions	Indicates if a directory named like the source drive should be included in the destination path. Activate this option to avoid name collisions when moving files form several drives.
Automatically rename existing files	If this option is activated, files will be automatically renamed if a file with the same name already exists in the destination. <u>Note</u> : Only available for "Zip" and "Move to path" operation.
Preserve permissions of the original file	If this option is activated, the permissions of the original file will be used for the file in the new location <u>Note</u> : Only available for "Move to path" operation.
Leave shortcut/link at original location pointing to new location	If this option is activated, a shortcut or link will be created at the original location that points to the new location to where the file has been moved. If you choose to leave a link and the files are on the same partition, then a hardlinks will be created. If creation of a hardlink is not possible, a symbolic link is used under Windows Vista and later. If this is not possible too, a Windows shortcut will be created instead as fallback. <u>Note</u> : Only available for "Move to path" operation.
Logging:	
Number of checked objects	States the total number of check-marked objects for your information.
Total size of checked files	Displays the total size of all check-marked files.
Log performed operations to:	Produces a log file with the name of your choice under the path of your choice. Environment variables like %DATE% or %TIME% can be used in the file name.

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Logging your file moving / archiving / deleting activities provides lucidity and security for your system maintenance and is highly recommended.

The log produced by TreeSize Professional shows all the necessary details to trace a maintenance act and will be saved in txt-format. A typical log file looks like this :

```
TreeSize Professional is starting move operation on 30.11.2007
10:50.
Moving the files to: C:\Obsolete\
  "C:\WINDOWS\BGInfo.bmp" => "C:\Obsolete\C\WINDOWS\BGInfo.bmp"
  "C:\WINDOWS\Help\article.chm" => "C:
  \Obsolete\C\WINDOWS\Help\article.chm"
Finished at 30.11.2007 10:50.
Freed Space: 7407476 Bytes (7 MB)
```

#### 14.8.1 Unicode Zip files

TreeSize Professional is able to zip files with file names including characters which are not part of your activated code page (<u>Unicode</u> file names). To restore this Unicode decoded Zip files you need an Zip tool that can handle Unicode encoding.

Here is a list of tools we tested:

Unicode compatible:	Not Unicode compatible:
WinRAR (V3.8 or higher)	Windows Integrated Zip tool (XP / Vista / Server 200X / Windows 7)
<u>WinZip</u> (V 11.2 or higher)	TUGzip (tested with V 3.5)
<u>7-Zip</u> (V4.6 or higher)	IZArc (tested with V 3.81)
	Filzip (tested with V 3.06)
	WinAce (tested with V2.61)

# 15 Schedule TreeSize Tasks

- Schedule Dialog
- <u>Command Line Options</u>

#### 15.1 Schedule Dialog

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It is possible to schedule tasks using the Scheduled Tasks folder of Windows. The dialog below will help you to create a scheduled TreeSize Professional task with the appropriate command line options. This feature is only available in the Professional Edition.

Configure Task All Tasks					
Path to scan:					
Export:		Options:			
Excel file:	C:\Users\Connor\Documen	Group all Scans in a Vi	rtual Root Folder		
HTML file:		Include only archived f	les		
TXT file:		Compare with a saved	report:		
XML file:		Exclude following file ty	ypes:		
Statistics on file types:		Expand directory tree:		Levels	MB
Statistics on usernames:		Use Size Unit:	· ·		
Pie Chart V		Only search for follow	ing file types:		
The second second		Start TreeSize File Sea	rch:		
Title for this report:		Start with last settings			
All pages First page only		Move Results to:	Zip file v		
Scheduler:		Command line:	N		
Once: Date:	1/15/2010 🗐 👻 3:32 PM 👘	3:32 PM A Y Streeports .xlsx"		*	
Daily: Every	1 (a) day(s) 3:32 PM (a)				
Weekly: Every	Sunday 🔹 8:00 PM 🚖				*
C Save Task			ſ	Close	🕜 Help
			L		

- Path to scanEnter the path(s) that should be scanned here. Multiple paths have to be<br/>quoted and separated by a blank.ExportHere you can choose which of the export options that TreeSize<br/>Professional supports should be used for the scan. The export options<br/>correspond to the command line options.
- Options Here you can specify further options for the scan and activate certain actions that should be executed after the scan.
- Scheduler Specify here when and in which interval the task should be executed.
- Command Line Here you can see the full command line of the task. If you don't want to use the Scheduled Tasks of Windows, then you can copy this command line to the clipboard and use it elsewhere, e.g. in a batch file.

The created command line call of TreeSize.exe can be added to the Scheduled Task of Windows by using the Save Task button.

#### **Edit Tasks**

Tasks can be edited on the "All Tasks" tab on top of the window or using the "Scheduled Tasks" applet in the Windows Control panel.

#### **15.2 Command Line Options**

The Professional Edition of TreeSize accepts command line options which allow you to do scheduled scans or to have the results of a scan on your monitor the next morning. The <u>Schedule dialog</u> will help you to compile a command line with the option below. These option are not available in the Personal Edition.

treesize.exe [/APPENDTOFILES] [/ARCHIVEBITFILESONLY] [/(BAR|PIE)CHART filename] [/ COMPARE filename] [/DATE] [/EMAIL] [/EXCEL filename] [/EXPAND [level|xxMB]] [/ EXTENSIONSLIST filename] [/FILEAGESCHART filename] [/FILTER pattern1;pattern2;...] [/ GROUPSCANS] [/FOLLOWREPARSEPOINTS] [/HTML filename] [/HISTORYCHART filename] [/ LISTSEPARATOR char] [/MOVETO (path|ZIP-file|Recycle Bin|Executable)] [/NOGUI] [/ NOHEADERS] [/NOUNITS] [/OPEN] [/PRINT] [/SAVE filename] [/SCAN textfile] [/SEARCH[:Start [xmlfile]|:Internet] ] [/SIZEUNIT N] [/SHEETNAME text] [/TITLE text] [/TOPFILESLIST filename] [/TREEMAP filename] [/USERSLIST filename] [/XML filename] Directories

/ APPENDTOFIL ES	If this option is used, TreeSize Professional will always append its output to existing files when doing an export, e.g. using /SAVE or /EXCEL.
/ ARCHIVEBITFIL ESONLY	This option will include only files in the scans which have the archive bit set. This option can be very useful if you want to calculate the size of a backup. In this case, you can create a shortcut on your desktop or in your start menu that will automatically start calculating the size of your backup:
	treesize /ARCHIVEBITFILESONLY "\\Server\Backup\This"
/BARCHART	Saves the bar chart of the scanned directory to a bitmap, GIF or JPEG file. The file type depends on the extension of the specified file name. This example creates a JPEG image of the bar chart for drive C:
	treesize /BARCHART C:\Documents\c.jpg C:\
/COMPARE	<u>Compares</u> the scanned path with a saved XML report. The following example scans drive C: and compares the result with a saved XML report for this drive:
	treesize /COMPARE "C:\temp\TSP XML\c.xml" C:\
	Alternatively, you can compare two already saved XML reports e.g. "c1.xml" and "c2.xml" by using this command :
	treesize /OPEN "C:\temp\TSP XML\c1.xml" /COMPARE "C:\temp\TSP XML\c2. xml"
	The /OPEN command prepares the comparison of the two files by expanding the first file (c1.xml into a scan file. The second file ("c2.xml") will be compared to this expanded scan file, just like it would happen, if we would compare c2. xml to a "real" scan.
/	This option will include only files in the scans, which were created during the

TDAYSONLY

#### CREATEDPAS past number of days, that are given in the argument.

treesize /CREATEDPASTDAYSONLY 8

Here, this option will only include files into the scan, which were newly created during the last 8 days.

It corresponds to the option "Include only Files Created in the Past XX Days" in the <u>Options</u> dialog.

/DATE This switch will add the current date to all file names occurring after it on the command line. This is useful if you want to do scans regularly every night or every weekend. If you want the date included in all filenames, then /DATE should be your first command line option. The following example will scan the network path \\host\share and save the result to a file like c: \scans\name\_03-12-20\_1550.xls:

treesize /DATE /EXCEL "C:\scans\name.xls" \\host\share

/EMAIL Sends the collected data to the given email address using MAPI. Your email application must be configured properly for MAPI. Multiple recipients can be separated with semicolons or commas. Example:

treesize /EMAIL sysadmin@company.com \\SERVER\C\$

If MAPI is not sufficient for you, we recommend to save the data to a file and use a command line based mailing tool like the free <u>BLAT</u>. A batch file to send an HTML mail could look like this:

"C:\Program Files (x86)\JAM Software\TreeSize Professional\TreeSize.exe" /HTML "D:\Temp\DriveC.HTML" C:\ BLAT "D:\Temp\DriveC.HTML" -to to@jam-software.com -f from@jam-software. com -server mail.jam-software.com

An exported Excel file can also be attached and the comands can be concatenated using the & operator:

START /WAIT treesize /EXCEL D:\treesize\_c.xls C:\ & BLAT - -to to@jamsoftware.com -f from@jam-software.com -server mail -subject "TreeSize scan of drive C" -attach D:\treesize\_c.xls -body "See attachment"

# /EXCEL Exports the collected data to Excel and saves it under the given file name. The application will terminate itself after saving. Example:

treesize /EXCEL "C:\Documents\c.xls" C:\

If the file name already exists, the file will be opened and a new sheet will be added. For the File Search the results of each search type will be placed in a separate sheet and existing files will be overwritten. To prevent this you need to use the command line option /APPENDTOFILES in addition.

/EXCLUDE This option allows to specify patterns for files and folders that should be excluded from a scan. Multiple exclude patterns can be separated using a semicolon. If one or more of the patterns contain spaces, the complete pattern string must be set into quotes. This command line option is equal to the Exclude list in the <u>Options</u> dialog. The following example will ignore folders that end with ".001" and folders that are named ".system":

treesize /EXCLUDE "\*.001;.system" \\server\Users

/EXPAND This option lets you specify how many levels in the directory tree will be expanded after scanning. If you don't specify a number, all folders will be expanded. Instead of a directory level you can also indicate an amount in MB. In this case all folders larger than the given amount will be expanded. The unit "MB" must follow the number without a blank. The following example will scan the folder "H:\user", expand all folders larger than 10MB and save the result to the Excel file c:\Results\Allusers.xls:

treesize /EXCEL "C:\Results\Allusers.xls" /EXPAND 10MB H:\user

/ This option allows to export the contents of the <u>drives panel</u> to a text or csv file. EXPORTDRIVE SLIST "C:\Results\AllDrives.csv"

/ This option allows you to save the statistics on file extensions / file types of the EXTENSIONSLI scanned file system branch to an Excel, text or CSV file. The following ST example scans drive C: and creates an Excel file in c:\Temp with the statistics of the file types on this drive:

treesize /EXTENSIONSLIST "C:\temp\C\_filetypes.xls" C:\

/ Saves the small chart that is visible on the bottom of the "Extensions" page to EXTENSIONSC a file.

HARI

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Saves the chart on the "File Ages" tab of the scanned directory to a bitmap, FIL GIF or JPEG file. The file type depends on the extension of the specified file EA name. This example creates a JPEG image of the bar chart for drive C: G

```
ES treesize /FILEAGESCHART "C:\Documents\c_file_ages.jpg" C:\
```

- C
  - , 1 A

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/FILTER

Allows to set a file filter so that only files with certain extensions, e.g. .MP3 or . DOC, will be counted. Multiple patterns may be passed, you can use spaces, commas or semicolons as separator between the patterns. The following example will search for AVI and MP3 files in the users directory on the server:

```
treesize /EXCEL "C:\Results\MediaUsers.xls" /FILTER "*.mp3;*.avi" \
\Server\Users
```

When performing a <u>File Search</u>, you can also use the /FILTER command line switch to specify the patterns of the <u>Custom File Search</u>. To perform a more complex custom file search <u>save search options</u> to a file and pass the resulting XML file at the command line after <u>/SEARCH</u>.

Note: When using a pattern without any wildcards ("\*" or "?") there will be a "\*" added at the beginning and at the end of the pattern!

/ When adding this switch to the command line, TreeSize Professional will FOLLOWREPA follow mount points and symbolic links when scanning a file system tree. RSEPOINTS

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/ Using this command line switch will group all scanned directories under a GROUPSCANS virtual root folder. Use /groupscans FALSE if you want to ensure that no virtual root folder is used.

Saves the chart on the "History" tab of the scanned directory to a bitmap, GIF
 HISTORYCHAR or JPEG file. The file type depends on the extension of the specified file name.
 T This example creates a JPEG image of the bar chart for drive C:

treesize /HISTORYCHART "C:\Documents\c\_history.jpg" C:\

/HTML Saves the collected data to a HTML file which can be viewed with any HTML browser later. If you also have a /PIECHART or /BARCHART parameter in your command line, the image will be included in the HTML file. The following example will generate an HTML report for the drive C: and saves it to D:\html:

treesize /DATE /HTML "d:\html\treesize.html" /PIECHART "d: \html\treesize.jpg" C:\

If you would like to scan and export multiple drives or folders, we recommend that you either use one call for each drive or folder, or that you use the command line option like in the following example:

treesize /HTML "d:\html\drive-c.html" /PIECHART "d:\html\drive-c.jpg" C: \ /HTML "d:\html\drive-d.html" /PIECHART d:\html\drive-d.jpg D:\

/ Allows to define the separator that is used when exporting text or CSV files. LISTSEPARAT OR
Allows to define the separator that is used when exporting text or CSV files. Text files use the tabulator by default, CSV-files the list separator from the regional settings of the control panel. Please specify a single character or the string "TAB" for tabulator. Examples:

treesize /LISTSEPARATOR ; /SAVE "C:\Results\c.csv" C:\
treesize /LISTSEPARATOR TAB /SAVE "C:\Results\c.csv" C:\

/MOVETO File Search: Allows to move the results of a file search to a ZIP file, another path, the recycle bin or an executable file. It can only be used in connection with a /SEARCH:Start command line option. To move the files to the recycle bin, specify the name of the recycle bin as seen in the Windows Explorer. The following command will search drive C:\ for internet cache files and move them to a ZIP file called <code>obsoleteFiles.zip</code>:

treesize /SEARCH:Internet /MOVETO "C:\temp\ObsoleteFiles.zip" C:\

This call deletes the files instead:

Treesize /SEARCH:Internet /MOVETO "Recycle Bin" C:\

This example will use <u>saved search options</u> and move all files that were found on Drive C: to a path  $E:\Desolete Files$ :

Treesize /SEARCH /MOVETO "E:\Obsolete Files" SearchOptions.xml

This example uses previously saved search options with the file name " ArchiveOptions.xml" and passes every matching file path to the batch file " Archiver.BAT" which e.g. may trigger an archiving process:

Treesize /SEARCH /NOGUI /MOVETO "Archiver.BAT" ArchiveOptions.xml

For ZIP-files the /DATE parameter can be used to add the current date to the

ZIP file name, See also: Move checked files

- /NOGUI No window will be shown and the application will not appear in the task bar. Useful for background scans. Caution: Use this switch only if you have tested the rest of the command line options because error messages cannot be displayed in this mode. However, it tries to log errors in the event log of Windows. Make sure that this is the first command line switch when using it.
- /NOHEADERS Omits the header lines that are usually written on top of exported files. This makes it easier to get plain data for postprocessing. This option can be used for the <u>File search</u> as well.
- /NOUNITS Omits the units that are usually written after size values. Use /SIZEUNIT to define the unit that will be used, adding /SIZEUNIT 0 will export plain byte values. This makes it easier to get plain data for postprocessing.

Note: This command line will only effect exports of the directory tree, generated by using the "/SAVE", "/EXCEL", "/HTML" or "/PRINT"("/PRINT1") options. "/EXTENSIONSLIST", "/USERSLIST" or "/TOPFILESLIST" will not be effected!

/OPEN Opens a saved <u>XML report</u> on application start. Example:

treesize /OPEN C:\Reports\Drive\_C.xml

/OPTIONS Use this parameter to apply former exported user settings to TreeSize Professional. User settings can be exported at "Tools > Options > Miscellaneous Settings".

treesize /OPTIONS "C:\Temp\User Settings.xml"

/PIECHART Saves the pie chart of the scanned directory to a bitmap, PNG or JPEG file. The following example will scan the drives C:\ and D:\ and produce a chart for each one in PNG format:

treesize /PIECHART "C:\Temp\c.png" C:\ /PIECHART "C:\Temp\d.png" D:\

/PRINT Prints a report for the scanned folder to the default printer. The application will be terminated after printing. Usage example:

treesize /PRINT C:\ D:\

/PRINT1 Prints only the first page of a report for the scanned folder to the default printer. The application will be terminated after printing. Usage example:

treesize /PRINT1 \\SERVER\USERS

/RESTRICTED Starts TreeSize Professional in a restricted mode in which many features are disabled that are not of interest for "normal" (non admin) users. Among the disabled features are: Check for Update, Open Software applet of Windows Control Panel, Schedule TreeSize scans, connect network drive, configure Windows System Restore, exports and apply NTFS compression. You can supply a path that should be scanned, e.g. the user's home directory, at the command line or using the <u>Startup Paths</u> in a <u>saved configuration file</u>. If you additionally pass the command line option /READONLY the user won't be able to delete or move files in TreeSize Professional, it will be usable only as

reporting tool.

/SAVE Saves the results to a text or CSV file after scanning or searching is finished. The application will terminate itself after saving. This example will save the results of the File Search to a CSV file:

treesize /SEARCH:Start /SAVE "C:\Results\c.csv" C:\

/SCAN Scans all paths that are found in the text file. The text file must contain one path per line. The following example scans all paths that are found in D: \PathsToScan.txt and writes each scan result to a separate sheet in an Excel File with today's date:

treesize /EXCEL d:\Results\%DATE%.xlsx /SCAN D:\PathsToScan.txt

You may also call TreeSize in a FOR loop with one of the paths only, please find an example below.

/SEARCH File Search: Opens the File Search window of TreeSize Professional. If ": start" is added to this command line option, the search is started immediately with the settings used the last time. Files that are added to the result lists will be checked automatically. A previously saved XML file containing settings may be passed, these settings will then be used to perform the search. The next example performs the search with settings that have previously been saved to the file searchSettings.xml and save the results:

treesize /SEARCH /SAVE "T:\result.txt" SearchSettings.xml

If ":Internet" is added to this command line option, it will start searching for temporary internet files and delete them. The drives activated during the last regular scan will be scanned, a special set of drives and paths can be specified on the command line (separated with blanks). Usage example:

treesize /SEARCH:Internet

The settings of the last performed file search will be used. However, you can specify the search patterns for the temporary file search using the /FILTER command line option. *Tip*: You can use the /SAVE command line option to save the results of the file search to a text or CSV file.

- /SIZEUNIT *N* This option can be used to specify the unit that should be used for displaying size values: N can have the values 0 to 4 which mean: 0 = Bytes, 1 = KB, 2 = MB, 3 = GB. Without this option the value will be used that was set the last when the TreeSize File Search was used.
- /SHEETNAME Allows to specify the name of the sheet that will be added to an Excel file when using the <u>/EXCEL</u> command line switch. Please note that an Excel sheet name must be unique in an Excel file and certain special characters like slashes, backslashes and colons are forbidden in Excel sheet name. TreeSize Professional will always create a unique sheet name by replacing invalid character with underscores and by adding date and time if necessary.
- /TITLE Can be used to change the title of the printed or exported report. That allows you to supply additional information to the user when using TreeSize Professional in an automated environment.

treesize /TITLE "This is drive C on Server3" /PRINT \\Server3\C\$

/TOPFILESLIST This option allows to save the contents of the Top 100 list to an Excel, text or CSV file.

treesize /TOPFILESLIST C:\temp\C\_top\_files.txt C:\

**/TREEMAP** Saves the treemap as Bitmap, GIF or JPEG-File.

treesize /TREEMAP "C:\Dokumente\treemap.jpg" C:\

/USERSLIST This option allows you to save the statistics showing the results grouped by username to an Excel, text or CSV file. The following example scans drive C: and creates an Excel file in "C:\Temp" with the statistics of the users on this drive:

treesize /USERSLIST "C:\temp\C\_users.xls" C:\

/USERSCHART Saves the small chart that is visible on the bottom of the "Users" page to a file.

/XML Saves the results to a XML file that can be loaded again later and can be used for comparisons

treesize /XML "C:\Results\Allusers.xml" H:\users\

This option can be combined with /EXPAND to limit the exported directories. Note: When loading a limited XML export to TreeSize Professional only exported directories will be shown!

Directories At the end of the command line, you may pass one or more paths that should be scanned by TreeSize Professional. The wildcards "\*" and "?" are allowed. Example:

treesize H:\users\A\*

To start one instance for each folder, you may use the Windows forcommand like this:

for /D %i in (C:\Windows\S\*) do @start /w treesize.exe %i

In case an error occurs, it will be returned as Windows error code in the exit code of the process. In filenames for the export as well as in the scanned paths environment variables can be used.

#### **Scanning Multiple Directories**

If you need to scan multiple directories, it can be a good idea to merge several calls in a Batch file, for example:

START /WAIT "C:\Program Files\JAM Software\TreeSize Professional\treesize.exe" /EXCEL D: \Share1.xls \\Server\Share1

START /WAIT "C:\Program Files\JAM Software\TreeSize Professional\treesize.exe" /EXCEL D: \Share1.xls \\Server\Share1

START /WAIT "C:\Program Files\JAM Software\TreeSize Professional\treesize.exe" /EXCEL D: \Share1.xls \\Server\Share1

The command "START WAIT" make sure that the jobs start sequentially. Not starting the jobs

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parallel is usually better because a single job makes better use of caches and system resources. It is also possible to store the shares that should be scanned in a text file and use the FOR command:

FOR /F %%p IN (Paths.txt) DO START /WAIT Treesize.exe /EXCEL "c:\temp\TreeSize-Reports-% DATE%.xls" "%%p"

FOR /F "tokens=1" %%i IN (Shares.txt) DO START /WAIT Treesize.exe /NOGUI /EXCEL "c: \temp\%%i.xls" /exclude ~snapshot "\\Server\%%i"

(Note: The double percent characters are required in batch-files, on the command line use a single percent only)

#### **Scheduled Start**

You can use the Scheduled Tasks folder of Windows to run TreeSize Professional daily at a certain time, the Schedule dialog of TreeSize Professional will help you setting up a scheduled task.

You can also use the at command to perform scheduled scans. If you for example want to scan the drives C: and E: next night at 03:00 a.m. and save the results to an Excel file, you must enter the following on the command line:

at 03:00 "C:\Program Files\JAM Software\TreeSize Professional\treesize.exe" /EXCEL "c: \temp\tsp.xls" /EXPAND 2 c:\ e:\

If you want to see the results of the file search on your screen when you come into your office in the morning, you should enter something like:

at 06:00 /INTERACTIVE "C:\Program Files\JAM Software\TreeSize Professional\treesize.exe" /SEARCH:Start

Read more about the at command in the Windows help. Error messages occurring during scheduled scans are listed in the Event Log of Windows.

#### Windows Scripting Host

If you intend to use the Windows Scripting Host (WSH), your command to start TreeSize Professional will look like:

```
Set Shell = CreateObject("WScript.Shell")
Shell.Run """C:\Program Files\TreeSize Professional\treesize.exe"" /XML c:\temp\drive_c.
xml c:\"
```

### 16 Copyright & Contact

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