



TreeSize Professional 3

User's Manual

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Development

Joachim Marder

Christian Winter

Johannes Täuber

Volker Schumacher

Contact

*JAM Software
Joachim Marder
Bruchhausenstr. 1
54290 Trier
Germany*

*FAX: +49-700-70707059
E-mail: support@jam-software.com
WWW: <http://www.jam-software.com>*

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1 Installation

To install TreeSize Professional, execute *TreeSizePro-Setup.exe* or *Tsizepro3-reg.exe* on the install media and follow the instructions. The Setup program then copies the necessary files to your harddisk and creates a new program group in the Start Menu. TreeSize Professional can be uninstalled using the Software applet in the Control Panel of Windows. The password needed for installing the registered version is printed on the disk label or included in our e-mail.

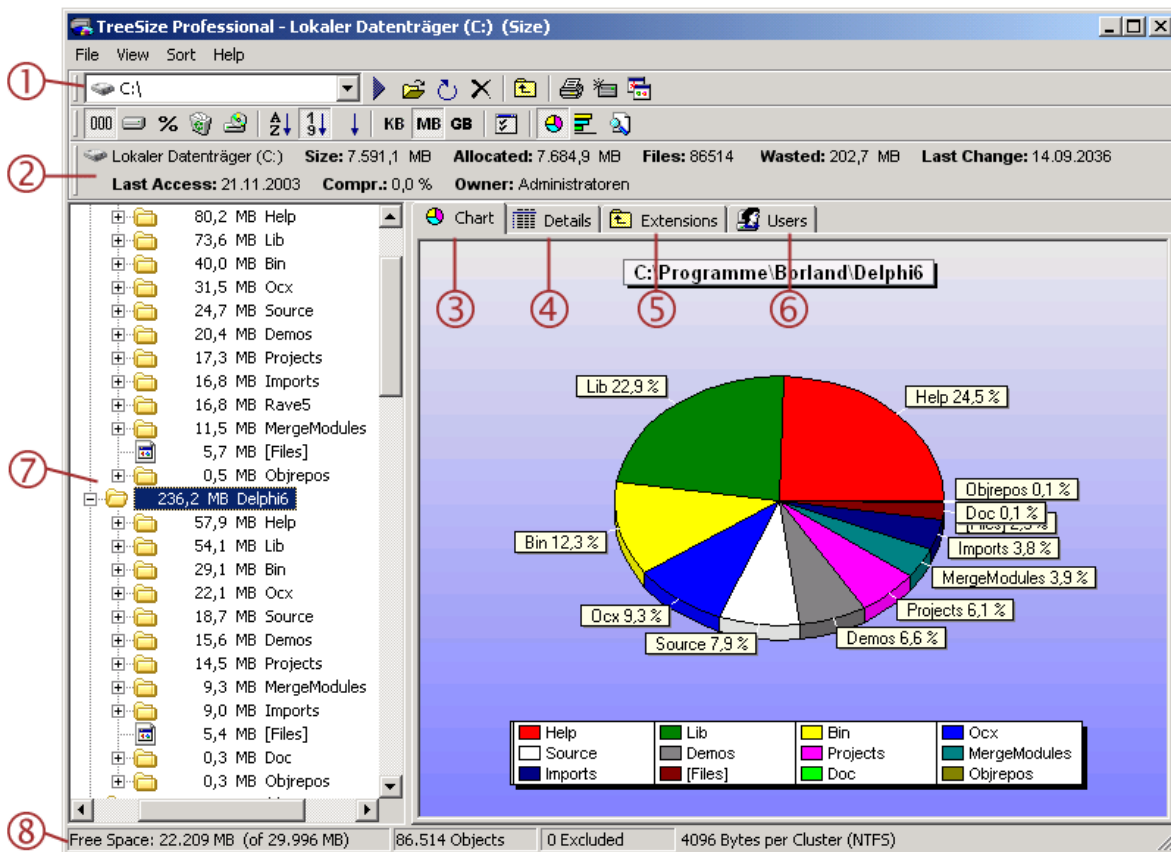
2 Overview

TreeSize Professional is a powerful and flexible harddisk space manager for Windows 98/ME/NT4/2000. Find out which folders are the largest on your drives and recover megabytes on it. TreeSize Professional shows you the size, allocated and 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. It also lets you search for old, big and temporary files. The application has an intuitive Explorer-like user interface and it is fast and multi threaded. You can print detailed reports or export the collected Data to Excel and to an HTML or ASCII file. TreeSize Pro can be started from the context menu of every folder or drive.

For every button and menu item in the TreeSize Professional window, a short description is displayed in the status bar. If you have further questions, you can contact JAM Software.

3 Quickstart

Please refer to the numbers in the picture when reading the following description.



1. Here the user can select, which drive or path should be scanned. Press the button with the arrow on the right to start scanning. TreeSize Pro here remembers the last paths that have been used.
2. Here the user can get an overview about 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 chart of the currently selected directory. Use the context to show a toolbar with advanced charting features.
4. The "Details"-page shows detailed information about the subfolders and the files inside the currently selected folder.
5. The "Extensions"-page shows the size information grouped by file types, that way you will get an overview what file types eat up most of the space.
6. The "Users"-page shows the size information grouped by user names, this allows you to see which users use most of the disk space.
7. The file system tree of the scanned folder or drive gives you an immediate overview about

the size of each folder.

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

4 Frequently Asked Questions

Q: The wasted space shown by TreeSize is extremely high. How can I reduce the wasted space?

- A: Most likely you are using the FAT file system which usually produces a lot of wasted space due to its large cluster size. Please read the chapter "[Wasted Space](#)" in the Help file to understand what wasted space is and to learn how to reduce it.

Q: Why is the occupied space that Windows shows in the properties dialog of the drive larger than the allocated space that TreeSize reports.

- A: The Windows Explorer shows the space that is physically allocated on the drive while TreeSize shows the space that is occupied by all files under a certain path. 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 or any other tool. This is usually 0.5-2% of the occupied space. Another possibility is that you are using Software RAID, like Windows NT/2000 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. If a drive letter points to a subfolder of a network drive, the allocated space (correctly) reported by TreeSize may also be much smaller than the physically allocated space on this drive reported by the Windows Explorer, because maybe not the whole drive is accessible through the network.

Q: For some folders TreeSize shows last accessed / changed dates that are far in the future. Why?

- A: The last access/change date that TreeSize shows for a folder is the *latest* last access/change date of a file inside this folder and its subfolders. Most likely, somewhere in these folders are files with a last access/change date far in the future, and so the last change date of the whole folder has the same date. You can try to search for these files using the Windows file search. These files are often a result of Y2K test or of a client PC with a wrong system date.

Q: Why do all files on my disk have the same last access date which is not far in the past?

- A: Windows updates the last access date of a file each time when an application is accessing or reading a file. Many backup and virus tools access every file on your harddisk regularly without restoring the prior last access date.

Q: Why does TreeSize Pro not include my disk into its calculation, which is mapped to a directory using the Disk Manager of Windows 2000/XP?

- A: Switching the option "*Follow mount points and symbolic links*" in the Options of TreeSize Pro, you can control if TreeSize Pro should follow mount points and symbolic links or should exclude them from its calculations.

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 bandwidth to the network is much lower than to your harddisk. Additionally, server drives usually are much bigger and contain more files than local hard disks. But you can use the [Command Line Options](#) to perform your scans overnight.

Q: I would like to print an entire list of contents of my harddisk. Why does TreeSize Pro not support this?

A: A normal Windows 2000 installation itself already has 6000 - 8000 files in the Windows directory. Just printing this directory would produce 90 - 130 pages and printing a whole drive would produce much more pages. Therefore TreeSize Pro only supports [printing](#) the contents of the currently selected folder. Additionally you can [export](#) a complete list of all files on the scanned drive or folder to the clipboard, which allows you further processing of the list like inserting it in a database or spreadsheet.

Q: Is it possible to have the program ignore displaying folders in the tree that are less than a certain size?

A: In the context menu of the topmost folder, you can choose to remove folders below a certain size. To achieve this, press the right mouse button on the topmost icon (or use the "Branch" submenu of the "File" menu), select "Expand" and then "Remove Folder <XX MB".

Q: Can I scan network drives and hidden shares like \\Server\C\$ without connecting them to a drive letter?

A: Yes, you can use UNC names like \\SERVERNAME\Sharename to access a network drive by entering them in the drive combo box of TreeSize Pro. You can also use UNC names on the command line.

Q: I would like to save a set of drives and folders that TreeSize Pro scans each time I start it. How do I do that?

A: You can simply create a shortcut to *Tsizepro.exe* on your desktop or start menu and add those drives and folders to the command line, separated with a space character. See chapter Ownerr more detailed information.

Q: Why does TreeSize Professional not include a duplicate file search?

A: We made several tests with existing duplicate file search tools. The amount of disk space that could be recovered was always negligible, because only very few files were "true" duplicate (obsolete) files. But the amount of time that was needed to go through the list of duplicate files was huge. So we decided not to include a duplicate file search.

Q: Why does TreeSize Pro not support Unicode characters?

A: One reason that we currently do not support Unicode characters is that our development environment does not yet support this. The second reason is that a program that uses the Unicode API calls of Windows NT and later, will not run any more under Windows 9x. But we will surely switch to Unicode in a later version of this software. If TreeSize Pro tries to scan a folder name containing Unicode characters, an error message will be displayed and TreeSize will continue using the 8+3 DOS name of this folder. These error messages can be turned off in the Options dialog of TreeSize Pro.

Q: Why do error messages appear when I am scanning a directory tree that contains Mac files?

A: Under MacOS file and folder names may contain characters that are invalid under Windows (e.g. /, |, <, >, ?) or that are not part of the normal Windows character set. Normal Windows applications cannot access these files or folders, in this case TreeSize uses the 8+3 DOS name of the folder. The error messages that are shown can be turned off in the Options dialog of TreeSize Pro.

Q: Is it possible to check several or all files in the File Search window at one time instead of checking them individually?

A: You may select several files using a left mouse click while holding the Shift or Ctrl key down. You may also press Ctrl+A to select all files in the list. Using "Check" from the context menu then 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: On a Novel Netware volume, TreeSize 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 support information about compression and file owners through standard Windows API functions. So developers have to integrate special support for Netware in their applications. We will address this issue in a later version of TreeSize Professional.

Q: How can I order TreeSize Professional and how will it be delivered?

A: You may order TreeSize Professional online at <http://www.jam-software.com/prices.shtml>. You will find a fax order form there as well. These orders will be processed by our sales department or by our partner, the ShareIt! Registration Service. If you choose to download the full version, you will receive the address of a (secret) download page for registered users, where you can download the full version of this software. If you choose to receive the software on disk with a printed manual, shipping costs of 6€/ 10\$ will be added to your order. You will then receive the software by air-mail within 2-7 days, dependant on where you are located.

Q: Although I have purchased the full version of TreeSize Pro, 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 the URL you received after the purchase.
2. You have accidentally installed the trial version again. (Have you been asked for a password?)
3. You have installed the full version to a different folder than the trial version, which is now still on your disk.

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

A: We do not work with activation codes, because you can find them very easily in the internet. We are working with a separate trial and full version. After purchasing, our customers receive the download address for the full version and a password which is needed for installation. You should keep both in a safe place.

5 Tips & Annotations

- Especially scans of network drives may take a long time. You may perform these scans overnight using the [command line options](#) of TreeSize Pro and save the results to an XML file, which can be loaded to TreeSize Pro again later.
- The last access date is the day when a file was used the last time, for example 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 great to remove unused files from your Windows and System directory.
- With a user defined cluster size, you can look how the values for occupied and wasted space would look like with a different cluster size on your harddisk. A rescan of the current folder(s)

is necessary when you change the user defined cluster size.

- You can use the CD-ROM cluster size to determine, how much space a directory tree would occupy on a CD-ROM. Please keep in mind that some space on a CD-R will be needed for the directory information.
- The 'filter' and 'user defined cluster size' settings are not saved to the registry in order to avoid wrong values when using TreeSize Professional the next time
- In the Recycled Folders you will not see the same file names like in the Explorer. This is necessary to get the size and the last access date of these files.
- Select 'Full Expand' from the context menu of a folder or drive before printing a report in order to get a report for the entire file system tree.
- You can scan all shares in a domain by entering the domain name in the drive combo box of TreeSize Pro.
- Use the '[File Search](#)' to find large or obsolete files on your hard drives.

6 Options

This dialog box allows you to change the view and scan options of TreeSize Professional. On the **View tab**, you can specify the following options:

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 [Notes on NTFS](#).

Show Files When this option is selected, TreeSize will display the files in a folder summarized in one object in tree. Also all files of a folder will appear in the Details View.

Show Chart toolbar Use this option to display an additional toolbar for the [Charts](#).

Automatically Update Right Pane During Scanning If this option is turned on, TreeSize Pro will update the right pane of the window from time to time. This allows you for example to watch the bars of a chart growing while scanning large drives. Use the dragbar to set the interval of the updates.

Decimals Choose the number of decimals that should be used when TreeSize displays or prints values.

Number of Folders in the Recently Used list Adjust the number of recently scanned folders that TreeSize Professional 3 should memorize for quick access in the File menu or the dropdown box in the toolbar.

Bold Factor If the size of folder is greater than the set percentage or absolute value of the complete size of the scanned folder, the folders label will be shown bold. This allows you to find quickly the largest folders. If you don't want bold folder labels, choose 100%. You can apply these settings also for printed reports as well by using the checkbox below.

The **Scan tab** holds the following scan options:

Follow Mount Points and Symbolic Links This option is relevant for NTFS drives only. You can decide if TreeSize should follow symbolic links and mount points (see

[Notes on NTFS](#) for additional information).

Show Error Messages Here you can decide if TreeSize Professional should show error messages during scanning. If you for example scan a network drive on a Windows NT server and don't have read 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 checkbox.

Group by user when Scanning If this checkbox is activated, TreeSize Professional 3 will additionally group the data of all folders by user. The results can be viewed on the "Users" tab of the main window. Since it is necessary to obtain the owner of each file, this option will slow down the scanning process if activated.

Group by extension when Scanning If this checkbox is activated, TreeSize Professional 3 will additionally group the data of all folders by the file extensions. The results can be viewed on the "Extensions" tab of the main window.

User Defined Cluster Size Use this option to look, how the values for allocated and [wasted space](#) would look like with a different cluster size or filesystem. Changing this option will make a rescan necessary. This options will not be saved when you exit TreeSize Professional in order to avoid wrong results when using TreeSize the next time.

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

File Types If you want to have information about certain file types only, you can specify a filter here. You can use multiple filters separated with blanks. So If you for example want to see how much space your executable files and their libraries occupy, use the filter "*.exe *.dll" here. If you want to include all files use "*". Changing this option will make a rescan necessary. This options will not be saved when you exit TreeSize Professional in order to avoid wrong results when using TreeSize the next time.

Include only files created in the past XX days This option is quite self-explanatory and can be useful to calculate the size of backups or to identify "heavy growing" folders.

Include only Files with Archive Bit Set This option is useful if you are interested in the size of a backup, that will be performed based on 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.

On the **Columns tab** allows you may 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, etc.) by first selecting the appropriate entry in the dropdown box on the top.

7 Wasted Space

The wasted space is the amount of space in clusters on your harddisk, that are not entirely filled. Keep the following formula in mind: *size + wasted space = allocated space*. Windows 9x with its file system FAT/FAT32 may have very large cluster sizes, dependent on the partition size:

FAT		FAT32	
Partition Size	Cluster Size	Partition Size	Cluster Size
128 - 256 MB	4 KB	1 - 8 GB	4 KB
257 - 512 MB	8 KB	8 - 16 GB	8 KB
513 - 1024 MB	16 KB	16 - 32 GB	16 KB
1025 - 2048 MB	32 KB	>32 GB	32 KB

If you for example have a single FAT32 partition on a 32GB harddisk, you have a cluster size of 32KB on it. If you store 10 files of 1 KB on this partition, this would use $10 \times 32\text{KB} = 320\text{KB}$ of your precious harddisk space, and $320\text{KB} - 10\text{KB} = 310\text{KB}$ would be wasted. Especially a huge number of small files significantly increase the amount of wasted space on FAT partitions.

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

- Make smaller partitions, try to avoid partitions larger than 16GB on a FAT32 drive. Of course smaller partitions will increase the number of drive letters.
- Windows NT/2000/XP provide the possibility to format your harddisk with the [NTFS file system](#). It usually operates with 512 - 4096 Byte clusters and has the best storage efficiency of all Windows file systems. NTFS partitions cannot be accessed from Windows 9x or DOS without use of 3rd party software. In addition, NTFS is able to [compress](#) selected directory branches.

8 Printing

TreeSize Professional 3 TreeSize Professional has flexible printing functions:

You can print a **detailed report** by selecting 'Print Report...' from the File menu or by pressing the print button in the toolbar. The report will show the directory structure of the current folder, including directory lines, and the information you have chosen in the [Options](#). Only those folders will be printed in the report, which are visible in the TreeSize Professional window. This way you can choose the folders that will be included in the printed report. To get a complete report that includes all folders and subfolders, select 'Full Expand' from the context menu of the topmost folder.

If the 'Details View' is active in the right pane of the TreeSize Professional 3 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 subfolders in the printout, including the icons, the size, allocated and wasted space and the number of objects. 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 menu](#). If the 'Chart View' is active 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 use 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 ['File' menu](#).

9 Charts

TreeSize Professional can visualize folder sizes as pie or bar charts. A chart always shows the size of the subfolders of the currently selected folder. A pie chart shows the size, allocated space, wasted space etc. dependant on what kind of [view](#) type the user selected in the toolbar. The bar chart shows the size, allocated and [wasted space](#) together in one chart, because: *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.

Clicking on a slice or bar shows detailed information about the corresponding folder, double clicking will move into the selected folder. Checking 'Chart Toolbar' in the [Options dialog](#) or in the context menu of the chart will display an additional chart toolbar, which 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, change colors, etc. Using this toolbar, you can also copy the current chart to the clipboard or save it as a file.

Choose 'Print Chart' from the 'File' menu to [print](#) a chart. A chart will be printed exactly as you see it on the screen.

10 Command Line Options

TreeSize Professional 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.

```
Tsizepro.exe [/(BAR|PIE)CHART filename] [/DATE] [/EMAIL] [/EXCEL filename] [/EXPAND
[level|xxMB]] [/FILTER pattern1;pattern2;...] [/HTML filename] [/NOGUI] [/PRINT]
[/SAVE filename] [/SEARCH[:Start[:Internet]] [/XML] directories
```

/BARCHART Saves the bar chart of the scanned directory to a bitmap or JPEG file, the file type depends on the extension of the specified file name. This example creates a JPEG images of the bar chart for drive C:

```
tsizepro /BARCHART C:\Documents\c.jpg C:\
```

/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:

```
tsizepro /DATE /EXCEL C:\scans\name.xls \\host\share
```

/EMAIL Sends the collected data to the given email address using MAPI. Your e-mail application must be configured properly for MAPI. Example:

```
tsizepro /EMAIL sysadmin@company.com \\SERVER\C$
```

- /EXCEL** Exports the collected data to Excel and saves it under the given file name. If the file name already exists, the file will be opened and a new sheet will be added. TreeSize Professional will terminate itself after saving. Example:
- ```
tsizepro /EXCEL C:\Documents\c.xls C:\
```
- /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 then 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:
- ```
tsizepro /EXCEL C:\Results\Allusers.xls /EXPAND 10MB H:\user
```
- /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:
- ```
tsizepro /EXCEL C:\Results\MediaUsers.xls /FILTER "*.mp3;*.avi" \\Server\Users
```
- /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:
- ```
tsizepro /DATE /HTML d:\html\treesize.html /PIECHART d:\html\treesize.jpg C:\
```
- If you 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
- ```
tsizepro /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:\
```
- /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 TreeSize Professional cannot display error messages in this mode. However, it tries to log errors in the event log of Windows.
- /PIECHART** Saves the pie chart of the scanned directory to a bitmap or JPEG file. The following example will scan the drives C:\ and D:\ and produce a chart for each one:
- ```
tsizepro /PIECHART C:\Temp\c.jpg C:\ /PIECHART C:\Temp\d.jpg D:\
```
- /PRINT** Prints a report for the scanned folder to the default printer. TreeSize Professional will be terminated after printing. Usage example:
- ```
tsizepro /PRINT C:\ D:\
```
- /PRINT1** Prints only the *first page* of a report for the scanned folder to the default printer.

TreeSize Professional will be terminated after printing. Usage example:

```
tsizepro /PRINT1 \\SERVER\USERS
```

**/RESTRICTED** Starts TreeSize in a "readonly" mode, in which the user does not have access to Explorer context menu, may not rename or delete files or folders and the buttons for the Software applet and to connect a network drive are not available in the tool bar.

**/SAVE** Saves the results to a text file after scanning is finished. TreeSize Professional will terminate itself after saving. Example:

```
tsizepro /SAVE C:\Results\c.txt C:\
```

**/SEARCH** Opens the [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. If TreeSize finds ':Internet' 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:

```
tsizepro /SEARCH:Internet
```

**/XML** Saves the results to an XML file that can be loaded with TreeSize Pro later again or can be used for comparisons.

### Scheduled Start

If you are using **Windows 98/ME or Windows NT4+ with Internet Explorer 5+** installed, you can use the 'Scheduled Tasks' folder to run TreeSize Professional daily at a certain time. Just add a new daily task and choose TreeSize Professional as program to execute. Before finishing, choose to change additional properties of this task and add the command line options you want after *tsizepro.exe*.

If you are using **Windows NT4 or later**, 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 NT command line:

```
at 03:00 "C:\Program Files\JAM Software\TreeSize Professional
2.3\tsizepro.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 in your office in the morning, you should enter something like:

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

Read more about the *at* command in the Windows NT help. Error messages occurring during scheduled scans are listed in the Event Log of Windows NT/2000.

### Windows Scripting Host

If you intend to use the Windows Scripting Host (WSH), your command to start TreeSize Professional 3 will look like:

```
Set Shell = CreateObject("WScript.Shell")
```

```
Shell.Run ""C:\Program Files\TreeSize Professional\tsizepro.exe" /XML
c:\temp\drive_c.xml c:\"
```

## 11 Notes on NTFS

The file system NTFS, which can be used with the operating system Windows NT or later. It offers some special features which also have consequences for TreeSize Professional 3. In the following we will describe some of these features and their impacts on this software.

### Access Control Lists

A user under Windows NT/2000 can 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 can even deny the Administrator to access his files and folders. If an Administrator tries to access a folder in the Explorer, to which the owner denied any other users read access, an "Access Denied" error message will be displayed. However, since V2.4 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 under Windows 2000 and with the user editor of Windows NT).

### 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 read 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 may be smaller than the size reported for this folder. TreeSize Pro is able to show the compression ratio in an extra column in the details view. Additionally it can show compressed files and folders in a different color, these features can be turned on in the [Options](#) dialog.

The NTFS version that comes with Windows 2000 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 3 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 into one logical file system disparate file systems. 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 you have the [Option](#) "Follow Mount Points and Symbolic Links" turned on, TreeSize 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.

*A final note:* If you are scanning an NTFS volume via network, TreeSize Professional is only able to handle file based compression and reparse points correct, if you are scanning on a Windows NT/2000 client. The API of Windows 9x cannot handle these features, so reparse points and compressed files will appear as normal folders and files.

## 12 The Menus

### 12.1 File Menu

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

- |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Select Directory</b>        | Shows a dialog which lets you choose a folder for scanning. You can also enter a local or network path directly into the drive combo box in the toolbar.                                                                                                                                                                                                                                                                                |
| <b>File Search</b>             | Shows the <a href="#">File Search</a> window.                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Branch</b>                  | Shows a submenu which is exactly the same as the <a href="#">context menu</a> of the root folder.                                                                                                                                                                                                                                                                                                                                       |
| <b>Update All</b>              | Rescans all folders which are currently listed in the TreeSize Professional window. You can update an individual folder through the <a href="#">context menu</a> of this folder.                                                                                                                                                                                                                                                        |
| <b>Load XML Report</b>         | Opens an XML report that has been saved by TreeSize Pro earlier. That way you can view earlier results without performing a whole scan again.                                                                                                                                                                                                                                                                                           |
| <b>Save XML Report</b>         | Save the information of the current file system branch to an XML file. This file can be loaded to TreeSize Professional 3 again at a later time or can be used to perform a compare at a later time.                                                                                                                                                                                                                                    |
| <b>Compare With XML Report</b> | Loads a saved XML report and compares it to the current one by "subtracting" the old size information from the current one. That way, folder unchanged in size will show up with a size of 0 after the comparison, folder 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. |
| <b>Set Title</b>               | 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 on.                                                                                                                                                                                      |
| <b>Page Setup</b>              | Shows the Page setup dialog where you can specify the margins for printing, paper size etc.                                                                                                                                                                                                                                                                                                                                             |
| <b>Print Report</b>            | Prints a detailed report of the current folder. See <a href="#">Printing</a> .                                                                                                                                                                                                                                                                                                                                                          |
| <b>Print Chart</b>             | Prints the currently visible <a href="#">Chart</a> .                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Print Folder Contents</b>   | Prints a list of all objects in current folder, including the icons, size, date,                                                                                                                                                                                                                                                                                                                                                        |

etc.

**Printer Setup** Shows the print setup dialog.

You can find a list of the recently scanned folders at the bottom of the file menu.

## 12.2 Export submenu

The Export submenu of the File menu 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 [Options](#) 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. That way you may customize the level of folders that will be exported manually or by using the [context menu](#).

**Save Data As** 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.

**Export Data to Excel** Exports the collected data to MS Excel.

**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 an text email via MAPI.

**Include Header** Toggles the header in the exported files on or off. If you want to process the exported data with other applications, it may be useful to turn the header off.

**Use Plain Numbers** Activating this option will save the results not in the format "10.2 MB" but will save the size information as the number of bytes in plain (e.g. 10695475). That may make postprocessing of the data easier.

**Copy List of Files** Copies a list of all files in the current folder (and its subfolders) to the clipboard. You can paste this list to your favorite spreadsheet or word processor.

## 12.3 View Menu

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 subfolders will be shown.

**Allocated Space** This will show the amount of space that is allocated on disk for this folder, again including all subfolders.

**Percent** Shows how many percent of the parent folder's size each folder occupies.

- Wasted Space** Shows the amount of space that is [wasted](#) by the filesystem for the storage of all files in this folder, including all subfolders.
- CD-ROM Cluster Size** This mode will show how much space a folder would occupy on a CD-ROM.

Use the next menu items to switch between different view modes for the right pane of the TreeSize Professional window:

- Bar Chart** Shows a bar [chart](#) on the right side of the window. Each bar shows the size and the [wasted space](#) for each folder, which together is the space allocated for this folder.
- Pie Chart** Shows a pie [chart](#) on the right side of the window. The values displayed in the pie chart depend on the currently selected view mode (Size, Allocated Space, Wasted Space etc.)
- Detailed List** Shows a list 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 in.

You can change the way TreeSize displays the sizes using these menu items or the corresponding toolbar buttons. The number of decimals can be changed in the [Options](#) dialog.

- Values as KB** All size values will be shown in KB.
- Values as MB** All size values will be shown in MB.
- Values as GB** All size values will be shown in GB.

Some further commands in the View menu:

- Add/Remove Software** Opens the 'Add/Remove Software' applet of the control panel.
- File Search** Shows the '[File Search](#)' Window, which allows to search for old, big files and temporary files.
- Options** Shows the [Options dialog](#).

## 12.4 Sort Menu

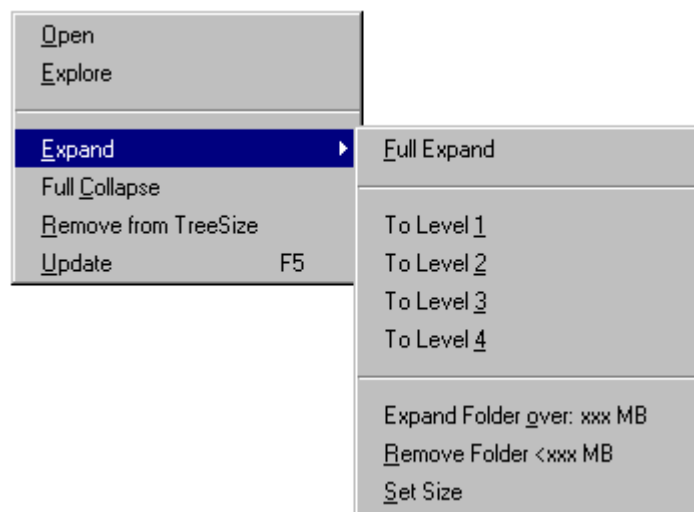
- Sort by size** The largest folders will be displayed first.
- Sort by name** The folders will be sorted alphabetically.
- No Sorting** No Sorting is done. This can be useful when scanning large folders or network drives, because folders don't permanently change their position.

## 12.5 The Context Menus

When you right click on a folder or file, TreeSize will display the explorer context menu. Additionally you will find the following menu items in the TreeSize submenu

- Full Expand** Expands the selected folder and recursively all its subfolders
- Full Collapse** Collapses the selected folder and recursively hides the subfolders
- Update Branch** Updates only this part of the tree, which is usually faster than updating the whole directory.

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



- 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** 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.
- Remove from TreeSize** Remove this folder from the TreeSize Professional window.
- Update** Rescan this folder and update the information.

## 13 File Search

### 13.1 The File Search Window

The 'File Search' window 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 harddisk. You can specify a minimum size in kilobytes or megabytes. All files, which are 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.
- Temporary Files** This page allows you to search for temporary files. Use the "Configure" Button to [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. On FAT drives, these files produce a lot of [wasted space](#), because most of them are very small. The search for temporary internet files can be automated with the [command line option](#) /SEARCH:Internet.
- 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 or UNC paths to the list by pressing the button below the list. All checked drives will be included in the search.

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

- Start** This button will start the search. You can now either close the window or you can look at the partial search results by selecting one of the tabs. You will hear a beep when the search is finished.
- Stop** Allows you to stop the search.
- Hide Window** This button will close the search window, but the search will continue. So you can look at the results later. You will see an animation below this button, as long as the file search is running.
- Save Results** This button allows you to save the search result of the currently active search type in a tab separated text file (CSV file).
- Move Checked** This button allows you to move all files in the lists, which are checked left of their file name, to the recycle bin or to a position in the file system that you can 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 ZIP file. **TIP:** You can easily check a group of files by keeping pressed the space bar or by selecting multiple files with the Shift or Ctrl key and then use the context menu.

## 13.2 Temporary File Search - Configuration

### 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 checkboxes on the left, you can reactivate certain patterns without deleting them.

**Include files with temporary attribute**

Applications that create a temporary file may inform the operating system with a special flag about this fact. With this checkbox activated, TreeSize Professional 3 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 checkbox activated, TreeSize Professional 3 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 checkbox activated, TreeSize Professional 3 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.

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