TreeSize Professional
V2.3

User's Guide

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1. Installation

To install TreeSize Professional, execute Setup.exe on the install media and follow the instructions. The Setup program will copy the necessary files to your harddisk and create a new program group in the Start Menu. TreeSize Professional can be deinstalled using the Software applet in the Control Panel of Window. 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 95, 98 and NT4. 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 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 multithreaded. You can print detailed reports or export the collected Data to Excel or an 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. Tips & Annotations

- The wasted space is the amount of space in clusters, which are not completely filled (the last cluster of a file or if the file is smaller than one cluster). The filesystem of Windows 95 (FAT) has very big cluster sizes (up to 32kb), so the amount of wasted space may be very large (up to 25%).
- To reduce the wasted space on your harddisk, put folders with a lot of wasted space on a compressed drive, or use Windows NT with NTFS or Windows 98 with FAT32.
- On a compressed drive, the values for allocated and wasted space may be incorrect. Usually there is nearly no space wasted on a compressed drive, but it depends on the type of compression software.
- The command line options can be used to do scheduled scans overnight.
- All Folders, which are visible in the left pane of window, will be printed in the directory list. If you want a complete report, select the top folder and choose "Full Expand" from the context menu
- 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 over a year, it may probably not needed on your system. This is great to remove unused files from your Windows and System directory.
- You can reorder the columns of the list on the right side via drag & drop of the column header. You can choose which columns are visible in the options dialog.

- You can enter a path for scanning directly into the drive combo box in the toolbar, you can also use UNC paths here.
- If you regularly scan the same drives, you can create a shortcut to TreeSize Professional in the start menu or on the desktop and add these drives to the command line. Then TreeSize Professional will start scanning these drives when it comes up.
- 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.
- You can only scan folders with TreeSize Professional, which are accessible with a file system path.
- 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.
- Use the 'File Search' to find large or obsolete files on your hard drives.

4. 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:

> Show Values as Allows you to specify whether values should be displayed in megabytes or kilobytes. Additionally you can select a mixed mode, which will display all values greater than 100.000 kilobytes in megabytes.
>
> 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.
>
> Chart toolbar Use this option to display an additional toolbar for the Charts.
>
> Decimals Choose the number of decimals that should be used when TreeSize displays or prints values.
>
> Bold Factor If the size of folder is greater than this percentage of the complete size of the scanned folder, the folders label will be displayed bold. This allows you to find quickly the largest folders. If you don't want bold folder labels, choose 100%.

If you make changes on the *scan tab*, a rescan of the currently listed folders is necessary. These options will not be saved when you exit TreeSize Professional in order to avoid wrong results when using TreeSize the next time. The following scan options are

available:

Filter(s) 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 "*".

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.

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.

The *columns tab* allows you to specify, which columns should visible in the list on the right pane of the window. You can change the order of the columns in the list by dragging a column header to a different position.

5. Wasted Space

The wasted space is the amount of space in clusters on you harddisk, that are not entirely filled. Keep the following formula in mind: *size + wasted space = allocated space*. Windows 95 with its file system FAT may have very large cluster sizes, dependent on the partition size:

Partition Size	Cluster Size
128-256 MB	4096 bytes
257-512 MB	8182 bytes
513-1024 MB	16384 bytes
1025-2048 MB	32768 bytes

Partitions larger than 2 GB are not possible with FAT. If you for example have a single partition on a 1.2 GB harddrive, you have a cluster size of 32 kb on it. If you store 10 files of 1 kb on this partition, this would use 10*32kb=320kb of your precious harddisk space, and 320kb-10kb=310 kb 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:
- Make smaller partitions. Don't make partitions larger than 1024MB, because partitions larger than 1024MB will have a cluster size of 32kb and a lot of wasted space. People

reported wasted space up to 25% on 2GB partitions. Of course smaller partitions will increase the number of drive letters.

- Put files which are small or rarely used on a compressed drive. You can use DriveSpace, which comes with Windows 95, to create a compressed drive. DriveSpace always fills the clusters completely and additionally tries to compress the stored files with a fast algorithm. The access time to the files on a compressed drive may be a bit slower. So don't put your windows directory or similar directories on this drive.

- Use Windows 95 OSR 2 or Windows 98. They provide the file system FAT32, which operates with 4kb clusters. FAT32 is completely incompatible to the old FAT file system, so be careful using old disk repair utilities on it. You cannot access FAT32 partitions with Windows NT.

- Windows NT/2000 provides the possibility to format your harddisk with the NTFS file system. It usually operates with 512 byte clusters and has the best storage efficiency of all Windows file systems. NTFS partitions cannot be accessed from Windows 95 or DOS without use of 3rd party software. In addition, NTFS can compress selected directory branches. The compression is invisible for applications and you don't need a new drive letter like with the DriveSpace software.

6. Printing

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, size, allocated space, wasted space, percent of parent, the last access and change date and the number of objects in this folder. 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 window, you can print the *contents of the folder* which is currently selected by selecting 'Print Folder Contents...' from the 'File' menu. You will see all files and subfolders in the printout, including the corresponding 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.

7. 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.

Right clicking on a slice or bar shows detailed information about the corresponding folder, double clicking will move into the selected folder. You can check 'Chart Toolbar' in the Options dialog to display a special 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 chart to the clipboard or save it as a bitmap 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.

8. File Searching

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. You can specify several patterns (e.g. 'temp' or '.bak'). All files which contain these patterns will be listed in this list.

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.

Please note: For security reason, the file search of TreeSize Professional will not list files that have changed in the last 24 hours, because they may be in use by another application. The buttons on the right side:

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 test 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 can then easily archive them in a ZIP file or write them to a CD-R. 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.

9. 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 [/SEARCH[:Start|:Internet]] [/DATE] [/SAVE
filename] [/EXCEL filename] [/CHART filename] [/PRINT] [/EXPAND
[level|xxMB]] directories
```

/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. Usage example:

```
tsizepro /SEARCH:Internet
```

/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:\
```

/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:\
```

/CHART	Saves the chart for the scanned directory to a Bitmap file. Example

```
tsizepro /CHART C:\Documents\c.bmp 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 this 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_1500-991220.xls`:

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

/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:\
```

/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
```

/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.

If you are using **Windows NT**, you can 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
```

Error messages concerning scheduled tasks are listed in the Windows NT event log. Read more about the *at* command in the Windows NT help.

If you are using **Windows 98**, you can use the 'Scheduled Tasks' folder to run TreeSize Professional at a certain time.

10. The Menus

10.1. 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.

Select Directory   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.

File Search   Shows the file search window.

Branch   Shows a submenu which is exactly the same as the context menu of the root folder.

Update All   Rescans all folders which are currently listed in the TreeSize Professional window. You can update an individual folder through the context menu of this folder.

Copy scanned data Copies the collected data to the clipboard. Only the data of those folders will be copied, which are currently visible (expanded) in the TreeSize window. Select 'Full Expand' from the context menu to copy all results.

Save Data As   Save the collected data to a tab separated text file. Only the data of those folders will be saved, which are currently visible (expanded) in the TreeSize window.

Export Data to Excel Exports the collected data to MS Excel. Only the data of those folders will be saved, which are currently visible (expanded) in the TreeSize window.

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.

Split Name and Path Use this option to select, if path and filename should be exported in individual columns or together in one column.

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.

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 on.

Page Setup Shows the Page setup dialog where you can specify the margins for printing, paper size etc.

Print Report Prints a detailed report of the current folder. See Printing.

Print Chart Prints the currently visible Chart.

Print Folder Contents Prints a list of all objects in current folder, including the icona, size, date, etc.

Printer Setup Shows the print setup dialog.

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

10.2. 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. The order of columns can be changed by dragging a column header to a different position.

You can also show the 'File Search' window and the Options dialog:

File Search	Shows the 'File Search' Window, which allows to search for old, big files and temporary files.
Options	Shows t he Options dialog.

10.3. Sort Menu

|	
Sort by size	The largest folders will be displayed first.
Sort by name	The folders will be sorted alphabetically.
No Sort	No Sorting is performed. Useful when scanning large folders on network drives, because folders don't permanently change their position.

10.4. 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 sufolders
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:
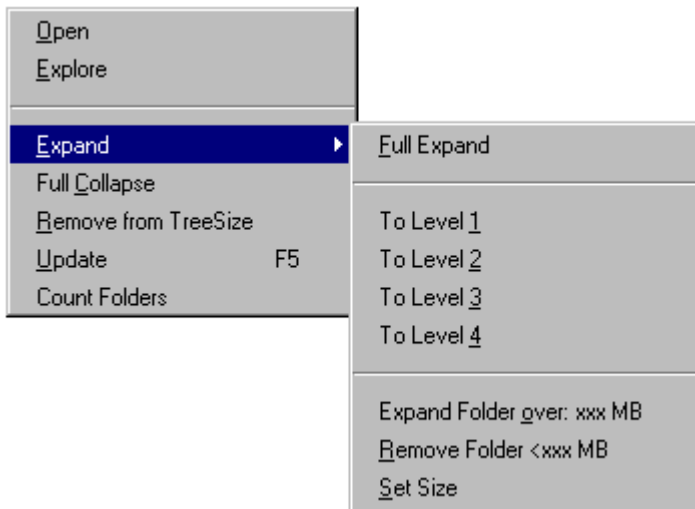
To Level *x*	Selecting this menu item will show the first x levels of the current folder.
Expand Folder over	This menu item allows you to expand only those folders in the tree, which are larger than a certain size.
Remove Folder <*xxx*MB	Selecting this menu item will remove all folders which are smaller 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.
Count Folders	Shows you the number of folders in the current folder.

11. Copyright & Contact

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