

Introduction

Disk Space Viewer

Disk Space Viewer is a shareware program which allows the number and size of files on a disk drive to be totalled by directory and viewed graphically.

There are two versions of the Disk Space Viewer program, one for Windows 3.1 and one for Windows 95. They are identical except that the Windows 95 version supports long file names, and can be linked automatically to Windows Explorer.

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Getting Started

The program is very simple to use. Simply select the drive and directory you wish to view, then click on the Start button. All [Subdirectories](#) of the directory chosen will be displayed.

To view all directories on a drive, ensure that the root directory of the drive is selected before clicking on the Start button.

Uses

The Disk Space Viewer program is useful for:-

- Managing your disk drive(s) by highlighting which programs or directories are using the most disk space.
- By making use of the [Cluster](#) size facility you can see how much free space is being reduced by for each file (this is usually higher than the file size shown in DOS, File Manager or Windows Explorer).
- A Comparison facility allows the size of directories to be saved at any time. This can later be compared with the current state (or another saved file) to show any changes in size since the original save.

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Registration

Shareware

The Disk Space View program is shareware. The purpose of shareware is to allow the program to be evaluated for its suitability for any purpose. You have 30 days to evaluate the shareware version, after which the program will not run unless it is registered.

Benefits of Registration

- Entitlement to use the program after the 30 day evaluation period.
- No "Unregistered Version" messages appearing or being printed.
- Automatic notification of New Releases and Upgrades.
- Technical Support - only registered users are entitled to Technical Support over the Internet, or by normal mail if you do not have access to the Internet.

How to Register

- If you (or someone you know) has access to CompuServe - click on GO and go to SWREG (Shareware Registration). Find Product ID 14890 and follow the instructions to register.

Registration costs \$25 (U.S. Dollars, around £16 at time of writing), which will be converted to your currency and included automatically by CompuServe within your monthly bill.

- If you have no access to CompuServe, you can send a cheque, cash (preferably by recorded delivery for your own protection), or Money Order for £20 (United Kingdom pounds) payable to M D Henson. Send it to:-

Mr M D Henson
2 Seymour Villas
Anerley
London
England
SE20 8TU

Please quote your name, address and E-Mail address if you have one.

After you have registered, you will receive by E-Mail (or standard mail if you have no E-Mail address) a code number which when applied will immediately convert the program to the registered version.

Upgrades

Upgrades (both for the Shareware and the Registered version) can be obtained from the M D Henson Software Internet page. There are two Internet addresses, either of which can be used:-

- <http://ourworld.compuServe.com/homepages/MDHenson>
- <http://members.aol.com/MDHenSoft>

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Entering Registration Details

Main Selection Screen

The Main Selection screen allows selection of drive, and if required, directory, of files which you can view. The drive and directory are only applicable when the Start button is clicked on.

The Options 1, Options 2 and Compare options allow selection of various settings on the right hand side of the screen.

[Options 1 \(display format and filters\)](#)

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Start Button

Starts totalling directories in the selected drive and directory. While totalling is in progress, a box appears showing current progress and allowing the totalling to be cancelled. All options selected apply to the totalling or display.

It make take some time to total files on a large or networked drive, however you are able to switch to other applications while totalling is in progress and use them with a small decrease in speed.

[Viewing Results](#)

Open Button

Opens a previously saved file and displays the results. Filters and options currently selected will be applied to the file being opened, not those applied when the file was saved, except for Cluster Size which retains the setting when saved.

Exit Button

Exits the Disk Space Viewer program, returning to Windows.

Setup Button

Allows various Setup options to be accessed. These are setting up a Program Manager or Start Menu icon, automatically creating a link from Windows 95 Explorer to the Disk Space Viewer program, and entering registration details.

[Setup and Installation](#)

Help Button

Displays this Help file.

About Button

Displays a box showing the version and registration status of the program.

Options 1 (Display Format and Filters)

Display Format

The display of directories can be in:-

- Alphabetical order (the default)
- Size order
- Number of files in directory order

The last two options will sort highest numbers first down to lowest. The size or number of files will include those in subdirectories.

Note that when sorting by size or number of files, subdirectories will always be shown beneath their parent directory (e.g. where the largest directory also contains small or empty subdirectories, these will also be displayed before the second largest subdirectory). Smaller subdirectories can be removed from display altogether by entering a minimum size in the "Only List Files Over" box (see below).

The size of files can be displayed in Bytes, KiloBytes (KB), MegaBytes (MB) or GigaBytes (GB). If KB, MB or GB is selected then the number of decimal places (0 to 3) to be displayed can also be selected.

Filters

The minimum size of directories being displayed can be set by entering the number of bytes, KB, MB or GB in the "Only List Files Over" box.

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Format of Bytes Edit Boxes

Enter the number of bytes to be used in the box. Alternatively you can enter the number in KiloBytes, MegaBytes or GigaBytes by entering K, M or G respectively after the number entered. Using KB, MB or GB will also be acceptable.

If the edit box is left blank, 0 bytes will be used.

Options 2 (Colours and Cluster Size)

Colours and Fonts

The size of files in each directory will be displayed as a bar graph in one colour, and any files in subdirectories of the directory will be shown in a different colour. Double-click on either of the colours to change them.

The font which directories will be listed in can also be changed, click on the Change button to do so. If a Bold version of the font is selected, headings will use a non-Bold version of the font (if available), and vice versa.

Cluster Size

The Cluster size of an uncompressed drive has a great impact on how much can be stored on the drive. The larger the drive (or, more accurately, drive partition), the higher the Cluster Size will be, and more space on the drive will be wasted.

If a value is entered in the Cluster size, this value will be applied when totalling each file so that the size of any file is rounded up to a multiple of the cluster size, to reflect the amount of free space which would be reclaimed if the file was deleted. Each subdirectory will also increase the size of a directory by the cluster size.

When the correct cluster size is used, the total of all files on the drive plus the amount of free space reported will normally equal the total size of the drive. It will not do so if incorrect or zero cluster sizes are used, or if there are any lost file fragments (which can be established by running ScanDisk or Chkdsk).

Entering different values can show how much space would be taken using different partition sizes for example. However, usually only the default value would be used.

Detecting the Cluster Size of a drive

The program can attempt to detect the cluster size of a drive if required, by clicking on the Detect button.

There are two ways the program can detect the cluster size:-

- Test File Create - this checks the free space on a drive, creates a very small test file on the root of the drive and re-checks the free space reported, before deleting the test file. The difference in free space size will be the cluster size.
- Get From OS (Operating System) - this uses DOS or Windows system information to obtain the cluster size.

The Test File Create method may be unable to report the cluster size or report it incorrectly if:-

- The drive is a compressed drive, for which cluster sizes are not usually relevant for the purposes of this program, as the compression uses space which would otherwise be wasted.
- The drive cannot be written to
- The drive is a networked drive and another user is writing to the drive
- The drive is being written to by another program
- Windows swap file operations are using the drive

The last 3 options can usually be resolved by retrying.

The Get From OS method should not fail, however the cluster size it reports may be incorrect for the purposes of this program (particularly for Compressed or Read-Only drives).

Automatically Detecting the Cluster Size of a drive

Checking the "Auto Detect on Drive Change" box will automatically attempt to detect the cluster size of a drive every time a new drive is selected.

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Comparison Options

Comparing Saved Files

Comparing saved files allows any changes in directories to be viewed. When Comparing saved files, the numbers and graphs show by how much the size and number of files have increased or decreased during the comparison, instead of the actual size of the directories.

The comparison option can also be used to compare the effects of a drive's Cluster size (on the Options 2 screen) by saving the results without using the Cluster size and comparing them with the Cluster size being applied.

Any new directories containing files since the first saved file will have their size shown in full. Any directories deleted since the first saved file will have their size shown in full as a negative number.

All options on Options 1 and Options 2 also apply when viewing the results of a comparison.

Compare Saved With Current

The "Compare Saved With Current" button will allow selection of a previously saved Disk Space file (extension .DSF), and will compare it with the current state of the disk or directory from the saved file. The same drive letters and paths must still be in use to allow a comparison this way.

Compare 2 Saved Files

The "Compare 2 Saved Files" button will allow selection of two previously saved Disk Space files, and will compare them. The oldest saved file should be selected first so that increases are shown as positive numbers.

This option warns if the two saved files were for different directories or drives, but does not prevent comparison, so if a different drive letter is being used or a directory tree is in a different place, comparisons can still be made.

If two entirely unlinked drives directories are compared, all directories from the first file will be shown as negative (i.e. as if they have been deleted between saves), and all from the second file will be shown as positive.

Options

Check "Include directories with unchanged size" to display directories where the number of files has not changed. This is unchecked by default.

Check "Include directories with size increase" to display directories where the file size has grown or any new directories have been added. An additional filter on how much the increase must be to display the directory can be set by entering the number of Bytes, KiloBytes, MegaBytes or GigaBytes in the "Only List Increases Over" box.

Check "Include directories with size decrease" to display directories where the file size has gone down or any directories have been deleted. An additional filter on how much the decrease must be to display the directory can be set by entering the number of Bytes, KiloBytes, MegaBytes or GigaBytes in the "Only List Decreases Over" box.

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Viewing Results

After the program has totalled the size of files and directories (either from the current state of a disk, from a previously saved file or as the result of a comparison), the View Results screen will be displayed. By default this will be maximized to fill the whole screen. The size can be reduced, but cannot be resized below a certain width.

Directories will be sorted by Name, Size or Number of Files as set on the Options 1 screen, but subdirectories will always be grouped together beneath their parent directory.

The Save button saves the results shown to a file which can be opened or used for comparison later.

The Print button prints the directories shown.

The Close button returns to the previous screen.

Five columns are shown. It is possible to resize any column by dragging the column divider with the mouse.

Name

The first row will show the name of the directory selected to be totalled, other rows show the name of each subdirectory that passed any filters. Lines show how each subdirectory links to its parent.

Files

This shows the number of files within the directory itself. It does not include files within subdirectories of the directory or subdirectory shown.

Files * (Includes Subdirectories)

This shows the number of files within the directory and all subdirectories beneath the directory or subdirectory shown.

Size

This shows the size of files within the directory itself. It does not include files within subdirectories of the directory or subdirectory shown. Any Cluster sizes set on the Options 2 screen are applied to this column.

Size * (Includes Subdirectories)

This shows the size of files within the directory and all subdirectories beneath the directory or subdirectory shown. Any Cluster sizes set on the Options 2 screen are applied to this column.

Graph

A bar graph will represent the size of each directory. It is scaled automatically, but the graph range can be changed by double-clicking or right-clicking anywhere on the graph.

Different colours (set on the Options 2 screen) represent the size of files within the directory itself and the size of files in subdirectories.

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Print Options

Title

A title to appear at the top of the page. For the registered version this defaults to the directory used, but this can be changed. The message in the unregistered version cannot be changed until the program is registered.

Portrait or Landscape

Select whether to print Portrait (the usual way) or Landscape (so the top of the page is along the longest side of the paper). Printing in Landscape will display less directories per page, but will give more room to display the graph. This is taken initially from your default printer setup.

Page Range

Choose All to print everything or Range to enter the start and end page numbers to be printed.

Graph

The size of files in each directory will be displayed as a bar graph in one colour, and any files in subdirectories of the directory will be shown in a different colour. Double-click on either of the colours to change them.

Directory Font

The font which directories will be listed in can be changed, click on the Change button to do so. If a Bold version of the font is selected, headings will use a non-Bold version of the font (if available), and vice versa.

Setup

Displays the standard Windows Printer Setup box to change the default printer or the default settings.

Print

Starts Printing.

Cancel

Returns to the previous screen without printing anything.

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Graph Ranges

Enter the Minimum and Maximum values of the graph range you wish to select in Bytes, [KiloBytes](#), [MegaBytes](#) or [GigaBytes](#).

Negative numbers can be used to show decreases in size when viewing results of a comparison.

The "Revert to Original" button will fill in the minimum and maximum boxes with the original, default values (0 or the size of the largest decrease when comparing, to the size of the largest directory, excluding the top level directory).

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Setup and Installation

The Disk Space Viewer program will usually be distributed as a ZIP file. This must be decompressed (unzipped using PKUNZIP or another utility) to another directory. It is preferable that all program files (listed below) are stored in their own directory, but this is not essential.

As this Help file comes with the ZIP file, the files must already have been unzipped (decompressed).

The program (DISKSP32.EXE for the Windows 95 version or DISKSP16.EXE for the Windows 3.1 version) can be run initially by double-clicking it from File Manager or Windows 95 Explorer.

Creating an Icon

From the Setup Options screen, clicking on "Create Program Manager Icon" (Windows 3.1 version) or "Create Start Menu Icon (Windows 95 version) will create an icon which can be used to run the program. The program group and the icon will be called "Disk Space Viewer". This icon can be moved or changed if necessary, see your Windows documentation or help for more details.

Linking to Windows 95 Explorer

The Windows 95 version of this program can be linked to Windows Explorer so that when you right-click on a drive or directory, an option will appear to run Disk Space Viewer against that drive or directory.

[More details](#)

Entering Registration Code

The last option on the Setup Options screen allows you to enter your registration code when you have registered.

[More details](#)

Files Installed

The following files make up the Disk Space Viewer program:-

- DISKSP16.EXE Disk Space Viewer program (Windows 3.1 version only)
- DISKSP32.EXE Disk Space Viewer program (Windows 95 version only)
- DISKSPAC.HLP This help file
- README.TXT Installation info about Disk Space Viewer

Usually only either DISKSP16.EXE or DISKSP32.EXE will be present, depending on whether the Windows 3.1 or Windows 95 version is being run, but both can exist in the same directory if you wish. The other 3 files are common to both versions.

Linking to Windows 95 Explorer

The Disk Space Viewer program can be linked to the Windows 95 Explorer so that when you right-click on a drive or directory, an option will appear to run Disk Space Viewer against that drive or directory.

Automatic Setup

Click on the "Setup" button from the Main menu, then click on "Create Automatic Link to Explorer", and answer "Yes" to the warning message that appears.

Automatic Setup is only available to the Windows 95 version of the Disk Space Viewer program.

Manual Setup

The link to Windows Explorer can be created manually if you still want to use the Windows 3.1 version of Disk Space Viewer in Windows 95 for any reason, or if you wish to change any options used.

To set the link up manually:-

- 1 Start Windows Explorer.
- 2 Click on the View and Options... menu items.
- 3 Click on File Types.
- 4 Scroll down to the "Drive" registered file type and click on it.
- 5 Click on the Edit button.
- 6 On the Edit File Type screen click on New.
- 7 Type "Disk Space View" in the Action box, and C:\DISKSPAC\DISKSP32.EXE in the Application used to perform action box (if you have installed to a different directory, enter this instead of C:\DISKSPAC. If you are linking the Windows 3.1 version use DISKSP16.EXE instead of DISKSP32.EXE). Any default command line options can also be entered here.
- 8 Click on OK, then on OK in the next box.
- 9 Repeat steps 4 to 8 but for registered file type "File Folder".
- 10 Click OK.

Changing Options

To change any options after setting up the link, follow the above procedure, but at step 6 click on "Disk Space View" then click on Edit.

To remove the link, follow the above procedure, but at step 6 click on "Disk Space View" then click on Remove, and ignore steps 7 and 8.

After setting up the link, whenever you right-click on any drive or folder within Windows Explorer (or in various other Windows 95 areas such as Open or Save boxes, or from the My Computer icon) an option "Disk Space View" should appear which will start the Disk Space Viewer for the drive or directory chosen.

Any additional command line options can also be input in the Application used to perform action box to customize the options used.

Command Line Options

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Command Line Options

Command Line Options enable the Disk Space Viewer program to perform certain actions automatically when it starts. For example it can check certain directories or use certain options automatically.

Available Command Line Options

All options can be entered in Upper or Lower case.

Examples are in **Bold**.

fff represents a Disk Space Viewer filename.

nnn represents a number (which can be followed by B, KB, MB or GB)

dirname will total files in the drive or directory on startup (e.g. **c:\windows**)

filename will open the file entered (e.g. **c:\diskspac\test1.dsf**)

/Vff Saves results to file (e.g. **/Vc:\diskspac\test2.dsf**)

/P Prints results using default printer, setup, font and colours

/X Exits program after running (only works if totalling, opening or comparing takes place successfully, and is only of any value if used in conjunction with **/V** to Save results to a file or **/P** to print results)

/Z Disables the Cancel button when totalling directories

/? Displays this Help file

/A Sort Directories in Alphabetical Order

/S Sort Directories in Size Order

/F Sort Directories in number of files order

/B Display output in Bytes

/K Display output in KiloBytes

/M Display output in MegaBytes

/G Display output in GigaBytes

/0 Display sizes with no decimal places

/1 Display sizes with 1 decimal place

/2 Display sizes with 2 decimal places

/3 Display sizes with 3 decimal places

/Onnn (Letter O) - only display directories over number entered (e.g. **/O1KB**)

/Lnnn Use a Cluster size of number entered (e.g. **/C8192**)

/T Use Test File Create method of Detecting Cluster Size

/E Get Cluster Size from Operating System when Detecting Cluster Size

/U Auto-Detect on Drive Changes (including initial drive)

Comparison Options

/N Include Directories with no change

/I Include Directories which have increased in size

/Innn Only include Directories which have increased by number entered (e.g. **/I2MB**)

/D Include Directories which have decreased in size

/Dnnn Only include Directories which have decreased by number entered (e.g. **/I2MB**)

/Cfff Compare file (e.g. **/Cc:\diskspac\test3.dsf**)

If there are no /N, /I or /D parameters then the default (all directories increased of decreased included, unchanged excluded) will be used. If any of /N, /I or /D are present then only those comparison options specified will be used.

If /C is used twice in a command line, the comparison will compare the two files, otherwise it will compare the file with the current state of the directory

The program will only start totalling directories if a directory or drive name, a file to open or the /C option followed by a file name is used. If none of these are present, or the directories or files do not exist, the program will remain on the first screen.

How to Implement Command Line Options

Command Line Options are implemented by following the program command line with one or more options.

On Windows 3.1, the command line for an icon can be shown by clicking on the program icon once, the clicking on the File and Properties menu items.

On Windows 95, the command line for a program can be shown by taking the following actions:-

- 1 Right-click on the Start Bar
- 2 Select Properties
- 3 Click on Start Menu Properties.
- 4 Click on Advanced.
- 5 Find the icon which represents the program.
- 6 Right-Click on the icon and select Properties.
- 7 Click on Shortcut

The field headed Target is the command line.

The path and program entered should not be changed, but various options can be typed after it.

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Entering Registration Details

After you have registered and received your registration code, you can enter it in one of 3 ways:-

- If you have quoted your E-Mail address or registered using Compuserve, the reply quoting your registration code can be saved as file DISKSPAC.LIC in your Windows directory (usually C:\WINDOWS).
- You can click on Enter Registration Code from the initial Unregistered Version screen to enter your registration code.
- You can click on Enter Registration Code from the Setup screen (accessible from the main screen).

If either of the last two options are used, you will have to type in the registration code accurately (it is case-sensitive), although if you have received your code via E-Mail, you can copy the code to the Clipboard and click on Paste From Clipboard.

Once a valid registration code has been entered, the initial "Unregistered Version" screen will no longer appear (nor will any other references to the program being Unregistered), and you will be able to use the program for an unlimited time.

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Advanced Use

Two other features of the program may assist more advanced users:-.

Command Line Options

It is possible to setup the Disk Space Viewer program with command line options so that it can check certain directories or use certain options automatically.

[How to use Command Line Options](#)

Linking Disk Space Viewer to Windows 95 Explorer

The Disk Space Viewer program can be linked to the Windows 95 Explorer so that when you right-click on a drive or directory, an option will appear to run Disk Space Viewer against that drive or directory.

[How to link Disk Space Viewer to Windows 95 Explorer](#)

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Colours

The size of files in each directory will be displayed as a bar graph in one colour, and the size of any files in subdirectories of the directory will be shown in a different colour. Select the new colour for the type of bar chart type you have double-clicked on.

Fonts

Select the font which you want directories will be listed in. If a Bold version of the font is selected, headings will use a non-Bold version of the font (if available), and vice versa.

Open Previously Saved File

Select the Disk Space Saved File (extension .DSF) that you wish to open or use for comparisons.

Save Disk Space Viewer File

Type the name that you want the Disk Space Viewer file to be saved under. Disk Space Viewer files will always have the extension .DSF.

This saved file can be:-

- Opened at a later date to examine the size of directories now.
- Used at a later date to compare the size of directories now with the size of directories at the later date.
- Used to compare to another Saved file.
- Used to compare with the current drive state using different Cluster Size options.

If you are saving the results of a comparison you should identify this in some way (e.g. save it in a different directory or start the file name CMP) so that you do not accidentally try to compare it to a non-comparison file, which may give misleading results.

Cluster

The Cluster size of any non-compressed drive is the minimum size each file or directory will reduce the free space by. For example, on a drive with a cluster size of 8192 bytes, any file from 1 to 8192 bytes will reduce the free space available by 8192 bytes. Any file from 8193 to 16384 bytes will reduce the free space by 16384 bytes (2 x 8192) etc.

GigaBytes

1 GigaByte (GB) = 1024 MegaBytes = 1048576 KiloBytes = 1073741824 Bytes.

KiloBytes

1 KiloByte (KB) = 1024 Bytes.

MegaBytes

1 MegaByte (MB) = 1024 KiloBytes = 1048576 Bytes.

Subdirectories

Subdirectories are directories of another directory.

