

DirSize 1.4

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	<i>TITLE :</i> DirSize 1.4		
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REVISION HISTORY

NUMBER	DATE	DESCRIPTION	NAME

Contents

1	DirSize 1.4	1
1.1	DirSize 1.4	1
1.2	Introduction	2
1.3	Features	2
1.4	Requirements	2
1.5	Installation	2
1.6	Usage	3
1.7	Example usage	4
1.8	Limitations	4
1.9	Bug Reports	4
1.10	Program Future	5
1.11	Program History	6
1.12	Acknowledgements	7
1.13	Author	7
1.14	Copyright Notice	7

Chapter 1

DirSize 1.4

1.1 DirSize 1.4

DirSize 1.4

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Introduction

Features

Requirements

Installation

Usage

Limitations

Bug reports

Future

History

Acknowledgements

Author

Copyright notice

DirSize was written by

Steve Robb
in 1995-1996.

1.2 Introduction

Introduction to DirSize.

Here is another one of those tools Commodore missed (I would say AT, but they have yet to do anything with the OS). If you are the owner of a hard drive, or similar storage devices, you may often wish to know the size of a, or several, directories. The trouble is, with the commands supplied with the OS, you can't. TRUE, you could use `list <dir>` all but this returns the blocks used, which is not the best unit - most people are more familiar with bytes, kilobytes, etc.

This is where a program like DirSize is useful. It quickly accumulates the sizes of the files inside a directory and it's sub-directories.

There is a number of similar tools available on Aminet and elsewhere, so why make another one? The reason is simple: I was bored! I couldn't be bothered to download one of the already available tools, so I wrote this. I have been using it for nearly a year now, without any problems (even with a relatively harmless mungwall hit which has now disappeared).

1.3 Features

Features of DirSize.

- * Select the unit of measurement (bytes, kilobytes, megabytes, gigabytes) or select automatically.
- * Include only files matching a certain AmigaDOS pattern.
- * Accumulate number of files and directories.
- * Find size of multiple directories.

1.4 Requirements

Requirements for DirSize.

DirSize requires the following:

Workbench 2.04+
Shell/CLI experience (only a little!)

Commodore's/AT's Installer program is needed for installation via Installer script. (Funny that!)

1.5 Installation

Installation of DirSize.

The simplest method of installation is to use the provided Installer script. Installer program is required for this to work.

To install by hand, just copy the executable (called DirSize) to your desired location. You might want to copy the documentation elsewhere.

1.6 Usage

Usage of DirSize.

Currently, DirSize is a Shell/CLI only tool. It is my intention to give it a user-interface (see future).

The command line template of DirSize is as follows:

```
DIR/M,WILD/K,B=BYTES/S,KB=KILOBYTES/S,MB=MEGABYTES/S,GB=GIGABYTES/S,AUTO/S
```

If you have any experience of AmigaDOS templates, most should be self-explanatory.

DIR/M: specify the directories you wish to count. If none are given, then the current directory is used.

WILD/K: include only files matching this pattern. This is a standard AmigaDOS pattern. The keyword WILD must be specified. Default: all files are included in the count.

B=BYTES/S,KB=KILOBYTES,MB=MEGABYTES,GB=GIGABYTES,AUTO/S:

These are all switches but only one should be used (the right most in the template has priority over those on the left, if you do use more than one). Specifying BYTES (or B) will cause DirSize to output sizes in bytes, KB will output kilobytes, etc. AUTO will cause the program to select a suitable size for each directory.

It is important to remember that you can only specify one unit for all directories. If you request KILOBYTES, sizes of directories will be in kilobytes. The only exception to this is AUTO.

Default: AUTO.

Once each directory has been scanned, the program will output the size of the directory together with the number of files and sub-directories inside it.

At the end of this, the total size, number of files and directories will be displayed. This is, basically, the sum of the figures given for the

individual directories.

See also:

Examples

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1.7 Example usage

Example usage.

DirSize

will output the total size of the current directory, including all files and automatically selecting a suitable sizing unit.

DirSize archives BYTES KB

will size the directory archives using kilobytes as the selected unit. Note that BYTES was specified, byte KB has precedence over this.

DirSize archives/ WILD=#?.lha

will only count the files ending with .lha in the directory archives.

As a final note, ensure there is enough stack space. 4096 bytes should be enough for small to medium nested directories.

1.8 Limitations

Limitations of DirSize.

A more precise notation for larger sized directories is needed. An example of this is say a 45000 Kb directory. In megabytes, this would be represented by 43Mb. A more precise value would be 43.94Mb. This I hope to achieve this by the next version.

I have not been able to try out DirSize on anything larger than 100Mb. It is likely that on any directory (or, for that matter, total size of a number of directories) larger than 4Gb will produce garbage (most likely, an incorrect size). The technical reason for this is that a 32-bit number is used to store the size. One gigabyte represented in bytes is 1,073,741,824. The highest unsigned 32-bit number possible to represent is 4,294,967,295, which is 4Gb less one byte. If demand is high, I could use 64-bit numbers (my calculator approximates this to be 1.844674407E+19). But, for the time being, try to avoid summing the sizes of two RAID5 drives!

1.9 Bug Reports

Reporting bugs.

First and foremost, ensure you have a sufficient stack available. DirSize is recursive, and a large number of directories may crash the system.

If you come across any bugs, please report them by sending me the following in as much detail as possible:

- * Characteristics of the bug, (e.g. program crash, incorrect directory sizes, etc.)
- * Your system:
 - Machine type (e.g. A500, A1200, A4000T).
 - Processor + co-processor (e.g. 68020+68882, 68030 no MMU).
 - Memory available (chip ram, fast ram (16/32-bit), Retina).
 - Graphics type (OCS, ECS, AGA, graphics card - type?).
 - Kickstart/Workbench release (About in Workbench will tell you this).
 - Hardware peripherals.
- * Software you were running at the time (try to re-create the bug without this software).
- * Take sometime trying to re-create the bug (i.e. cause it to occur again).
- * Any other details you feel relevant (e.g. Mungwall/Enforcer hits).

Send the report to me at the
address
listed.

1.10 Program Future

Future of DirSize.

I have the following features planned for DirSize in the near future:

- * Pattern matching for directories. For example, DirSize arcs(0|1|2) would be equivalent to DirSize arcs1 arcs2 arcs3.
 - * Graphic user-interface. Designed with Workbench in mind, it should show total size and current directory.
 - * Localisation. Although it is unlikely that any catalogs will be supplied (I don't speak any other language well enough to create a catalog file), I will ask for you for help.
 - * Terse/verbose modes for Shell interface. Terse should only display the directory being sized, verbose should show sizes of all sub-directories. This would be similar to the UNIX du -s command.
 - * Real-time updating display of 'size-so-far' in the Shell.
-

- * Use floating-points for sizes.
- * Stack checking - since a recursive function is used, a large number of directories may cause a stack-overflow and corrupt memory.
- * Maybe use 64-bit numbers for sizes larger than 4Gb (see limitations).

Further items maybe added at a later date. If you have any suggestions, contact me and I'll see what can be done.

1.11 Program History

History of DirSize.

- 1.0 (10 Jul. 1995) INTERNAL. Program size: 4052 bytes.
- Started program.
- 1.1 (12 Jul. 1995) INTERNAL. Program size: 4704 bytes.
- Added BYTE, KB, MB, GB and AUTO keyword options.
- 1.2 (13 Sep. 1995) INTERNAL. Program size: 5260 bytes.
- Names are enclosed in quotes to avoid confusion if there contains a space.
 - Added a version string.
 - Added a file and directory counter.
- 1.3 (5 Jan. 1996) INTERNAL. Program size: 5628 bytes.
- Removed some debugging statements I left in.
 - Added pattern matching. Only works on files matching given pattern.
- 1.4 (2 Aug. 1996) PUBLIC RELEASE. Program size: 5392 bytes.
- Made some optimisations (compare the size with 1.3).
 - Remove a function which is no longer needed (it contained a Mungwall hit since version 1.0).
 - Altered text output. Now it is clearer and less verbose.
 - Added ctrl-c checking whilst recurring through directories.
 - Added an AmigaGuide® document.
 - Made an Installer script.
 - Finally released it!
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1.12 Acknowledgements

Acknowledgements.

All of the code was written by
myself

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I wish to thank Rafael D'Halleweyn for his CatEdit program, the .guide file of which was used as a guideline for this AmigaGuide® file. In particular, the copyright disclaimer based on the one supplied with CatEdit.

1.13 Author

About the author.

DirSize was written by Steve Robb.

If you have any queries, suggestions,
bug reports
, etc. please contact me.

Use one of the following e-mail addresses, if possible:

steve@seatac.demon.co.uk (preferable)
smrobb@essex.ac.uk (until June 1997)

Normal mail to the following address:

Steve Robb
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Norfolk
IP25 7QU

UNITED KINGDOM

Telephone is not available - I'm not living at that address but mail is guaranteed to reach me (with a delay of a day or two).

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1.14 Copyright Notice

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Listing of archive contents:

DirSize.info	1188
DirSize/	
DirSize	5392
DirSize.guide	14449
DirSize.guide.info	1911
DirSize.readme	922
DirSize.readme.info	1907
Install_DirSize	2372
Install_DirSize.info	1256