DUD English Guide

COLLABORATORS

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REVISION HISTORY

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Contents

Chapter 1

DUD English Guide

1.1 DUD V1.1 Guide

Introduction

System requirements

(De-)Installation

Example

Project menu

Dog menu

Settings menu

Gadgets

Known Bugs

History

Questions & Answers

Copyright / Distribution / Technical

(This guide needs AmigaGuide V40+)

1.2 Introduction

DUD is a programm in the Dirusage category, you can let it measure how much place a directory occupies on a volume. Contrary to most other dus, you can use DUD with your mouse and from the workbench.

DUD has been designed for usage with OFS/FFS. By using it with other filesystems DUD may give incorrect results and show misbehaviour.

1.3 System requirements

Your Amiga should fulfil the following technical requirements:

- AmigaOS 3.0 or better

- MUI 3.0 or better

As DUD is not loading single files but scanning directories, a fast cpu will be very advantageous next to a fast harddisk.

1.4 (De-)Installation

Installation:

To install DUD you can simply drag its icon into a drawer on the workbench. You can choose between a version that runs on all Amigas (DUD_68000) or a version that needs an MC68020 or better (DUD_68020). The 68020 has disabled some special error checking like stack checking, which is not needed under normal circumstances, so it can run at maximum speed.

DUD´s settings will be created automatically in ENVARC:mui and are usually called DUD.1.cfg and DUD.1.wini. If you use the cache option then there will be some other files created on you harddisk, but you can choose the directory for them freely.

Deinstallation:

Provided you ever (never) want to remove DUD from your system, you will have to delete the mentiond files by hand. If you have not chosen a special directory for the cache files, they will have been created in the same directory as DUD. Their name consists of the prefix DUD_ + the name of the volume without the : + the Suffix .dat. So, the name of the cache file for Workbench would be DUD_Workbench.dat.

1.5 Example

You may start DUD form the workbench with a doubleclick on its icon. The main window will present you a list of volumes and you may choose one of them (for testing you should choose a partition with not too many entries in it, as reading them all can take a few minutes). DUD will start reading the whole directory structure of the volume. After that the top level directories will be presented in a list on the right side and as a diagram on the left side of the window. You may notice the entry "", which represents the current directory.

The list offers you three types of information

1) Name of the directory: it represents always a subdirectory to the current directory

2) Percentage: it shows you, how much of place, that the current directory with all of its subdirectories uses is used by this directory and all its subdirectories. The percentage is always relative to the current directory. The directory "" stands for the usage of the files in the current directory.

3) Value: Gives you always the number of either bytes or blocks that the directory and all of its subdirectories use.

The title has correspondending values for the current directory, only the percentage is always relative to the volume.

You may now select one of the directories with a doubleclick. All of its subdirectories will be shown and the selected directory will get the current directory. As the whole disk structure has been read already no further disk access is necessary. You may also select a subdirectory in the diagram on the left side.

If you want to go back to the parent directory, you should select Parent right under the list. The Root gadget will bring you to the top level directory.

You may sort the list either by name or by size with the lowest cycle gadget.

Just above you will find two other cycle gadgets. The right allows you to view either blocks or bytes in the list. The left orders the columns. Just try it out.

Pressing the Check gadget will read the directory and all of its subdirectories again, but only if they have changed. CheckAll will do the same for the whole volume. These two operations will be much faster than reading a whole disk for the first time.

You can change the look of the diagram in the settings menu. Try Settings->Drawing Style.

For a faster scannng of the whole volume next time, you should save the disk structure with Projekt->Save.

For reading a new volume press the New Volume gadget.

Do not forget to save you settings with Settings->Save Settings before you quit the program.

1.6 Projekt menu

New Volume will show you the volume list again. The dir structure of the old volume will get lost.

Save saves the disk structure of the current volume in a file. This file works like a cache for the disk structure, so next reading will be considerably faster.

Save In... lets you choose the directory, in which the cache files will be saved. Predefined is the same directory DUD has been started from.

About... gives useless information.

About MUI... gives USEFUL information about MUI.

Quit Program quits DUD.

1.7 Dog menu

Disk Info gives some additional informations about the current volume. Device informs you about the device name, FileSystem about the name of the filesystem. Total Blocks is the maximum number of blocks that can be used on the volume, Used Blocks means, how many blocks are used already. Blocksize gives the number of bytes in a block and Datablocksize gives the number of databytes in a block. The second Used Blocks value informs you about the number of blocks calculated by DUD. Bitmap Blocks, Directories and Files hold the number of bitmap blocks, directories and files. Oldest Directory shows you the oldest directory on your disk. LastOpTime informs ayou about the time spent during the last operation of DUD

The Parent, Root, Check and CheckAll menus have the same functions as the correspondending gadgets.

1.8 Settings menu

AutoCheck triggers the same action as if you pressed Check/Check All. Load does so after the reading of a cache file, DirChange does so after every change of the current directory.

AutoSave makes a cache file as if you selected Project->Save. Quit saves the disk structure just before quitting DUD, Volume Change does it when you select a new volume.

Use Cachefile selects whether cache files are used or not.

Use XPK denotes, if you want to pack the cache files with XPK. You cannot select this menu if XPK could not be found on your system. If you do use it, then the cache file will be saved first to T: and then copied in compressed form to the original directory for your cache files. XPK will save some space on your hd, but loading and saving will take a little bit longer. Two examples: (Time was measured on a 68030/25MHz system)

| uncompressed | XPK-NUKE compressed

| Load | Save | Size| Load | Save | Size

----------------|--------|--------|--------|--------|--------|------------

Meeting-Pearls 3| 6.1s| 4.9s|278.022B| 8.4s| 17.9s|95.664B

8004 Dirs, 650MB| | | | | |

----------------|--------|--------|--------|--------|--------|------------

HD-Partition | 0.6s| 0.6s| 24.521B| 1.0s| 2.1s|11.308B

719 Dirs, 80MB |

Check Links selects, if Links should be scanned, too. You do not want to set this option in general, because it can give you wrong results.

Special RAM will use a special method for scanning the "Ram Disk:", because it does not organize its data in a documented way like OFS/FFS. This method is built on the programmers exploration into the deep AmigaOS3.1 "Ram Disk:" jungle, so it may

fail with other versions of the "Ram Disk:" and that is the reason why you can deselect this menu. After changing the state of this menu you should let DUD scan the "Ram Disk:" once more (drag the icon onto DUD´s window).

Change AMICDROM BlockSize solves a problem with the AmiCDROM-FS. For some strange reason AmiCDROM gives a BlockSize of 8192Bytes, but this will lead DUD to wrong results. Turn this option on and DUD will internally set BlockSize to DataBlockSize.

DCxFS selects the treatment of the special DCOFS/DCFFS blocks. Approximate gives only an approximation (error under 1%), Low Level gives exact reults, but takes longer time and can lead to compatibility problems.

Show hides the diagram (Diagram) or the list (List).

Drawing Style changes the style of the diagram. Pattern draws patterns, Outline draws outlines and Colour (surprise!) coulours.

Save Settings will save all settings in ENVARC:. Beside the entries of the settings menu, the selections of the four cycle gadgets and the directory for the cache files will be saved.

1.9 Gadgets

Parent shows you the parent directory.

Root shows you the top level directory.

Check reads the current directory and all of its subdirectories again.

CheckAll reads the whole disk structure again.

N % B arranges the columns in the list.

Bytes|Blocks gives values in either bytes or blocks. In the list B represents single bytes/blocks, K represents 1024 bytes/1000 blocks, M represents 2^{20} bytes/10^6 blocks, G represents 2^{30} bytes/10^9 blocks.

Alpha|Size lets you choose the criterion for sorting the subdirectories.

B|B/K/M/G yumyum.

1.10 Known bugs and problems

DUD has been programmed to work with OFS/FFS formatted volumes. By using it with other filesystems you can get incorrect results.

RAM-Disk: The RAM-disk does not really work with blocks, so DUD has a special routine for the RAM: that comes with AmigaOS3.1. DUD might give wrong results with other versions of AmigaOS.

AmiCDROM (CDROM-Handler 1.15, PD): The correctnes of the block value differs from CD to CD, great detailed analysis of 7 CDs shows incorrect results of in a range under 1%, but the error can be higher if it contains audio tracks. In addition you should set the SD-value higher than the default of 5. A value of 50 enables DUD to scan disk up to three times faster than before (other programs will like that, too).

CDFileSystem (comes with AmigaOS 3.1): Contrary to AmiCDROM the Buffers are not so important as with AmiCDROM, but can speedup things, too. Results are somewhat incorrect, too.

No other filesystems tested.

My english is not very good, do not feel offended in any way, if you find any bugs in this documentation, please. MAIL ME CORRECTIONS!

DUD can only display volumes up to 2GByte. If a volumes has more data, then DUD will switch from byte to block display. Internally DUD only handles blocks, so you might expect DUD to handle volumes with 1024GByte or more.

Notify is not working right now.

DUD uses the stack very intensive, the predefinded stack (30000) is big enough for more than 700 directory levels (The whole number of directories is only limited by ram).

The saving/loading of cache files might be somewhat slow on AmigaOS 3.0. Better use AmigaOS 3.1+

DUD has not seen many beta testers, there might be some other bugs left.

1.11   History

Past:

V1.0 1. Dec 1995

First version.

V1.1 18. April 1996

- Special MUI 3.x features introduced: Bubble-Help, Balancing, MUI-Prefs, MUI-advertising...

- The "filesystem" for the "Ram Disk:" has some better support now

- Better Support for AmiCDROM

- Cache files can be compressed with XPK

- A mouseclick outside the diagram will show the parent directory

Future:

Better support for other filesystems.

Send all your suggestions to the author, please.

1.12   Questions & Answers

«The two "Used Blocks" values do not match. Which one is correct?»

The first one is an information of AmigaDOS. The second one is a calculation of DUD and contains only the number of blocks used by files and directories; add the bitmap blocks to the second and they should be the same.

If they still differ, read on:

1) You have deleted or added something on the volume after DUD has scanned it. Select Check All and DUD will update its internal representation of the volume.

2) AmigaDOS sometimes forgets one block. For example, AmigaDOS shows only one used block for empty disks, but this is not possible, an empty disk needs one bitmap and one root block.

3) You are not using OFS/FFS.

«The list gives wrong results. It says that 10,752 Bytes make 10.5 KBytes.»

Do not forget: 1KB is 1024 Bytes, 10,752 : 1024 = 10.5

«The list gives wrong results. In a drawer with five files 200Bytes each, DUD measures 5KB to be used.»

Disk space is measured in blocks and a file can not occupy half blocks, so a file with 200 bytes needs at least one block with 512 bytes. Also, every file needs a so called FileHeaderBlock, which contains the name, the attributes and the comment for the file.

«The values on the initial volume page differ from the values DUD presents after it has scanned a volume»

Well, scanning a drive takes a noticeable amount of time, so DUD is only asking DOS for the values. The values presented by DUD after the scan could differ a lot (RAM:), a little bit (CDs) or (pray...) not at all (OFS/FFS).

«Why is a special option for the Ram Disk: necessary?»

RAM: does not always work with a constant BlockSize of 1024bytes. It adapts the BlockSize for very small files and has another BlockSize for its management blocks (120bytes). Do not mind the BlockSize of 8 Bytes, witch is shown in the DiskInfo window, it is only set by DUD to simplify its internal calculations when working on the "Ram Disk:"

«How should I configue MUI locally for DUD?»

You can turn off the Arexx interface, because DUD is not using it.

If you have a slow Amiga, then you may set the look for "Balancing Groups" to "show frames".

The diagramm will come up somewhat faster after it had been hidden by another window if you set DUDs window refresh to "smart", but this will cost more memory.

Do not forget that you can turn off the bubble help, if you find it annoying after some time.

1.13 Copyright

Copyright:

DUD is ©1996 by Stefan Tiemann. DUD is Bugware, you have to report all bugs you find to the programmer. You have to report all suggestions for the future of the program. You may send the programmer as many $ as you like, he will take them all and light some candles for you.

You may copy DUD in its original form to any place you want.

The programmer takes no response for the functions of the program and for any damage that occurs to you, your system or your pets while using DUD.

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Technial notes:

DUD has been programmed in Modula-2 with the M2Amiga-System.

GUI by MUI, read the following.

This application uses

MUI - MagicUserInterface

(c) Copyright 1993/94 by Stefan Stuntz

MUI is a system to generate and maintain graphical user interfaces. With the aid of a preferences program, the user of an application has the ability to customize the outfit according to his personal taste.

MUI is distributed as shareware. To obtain a complete package containing lots of examples and more information about registration please look for a file called "muiXXusr.lha" (XX means the latest version number) on your local bulletin boards or on public domain disks.

If you want to register directly, feel free to send

DM 30.- or US$ 20.-

to

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