

DMx

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Chapter 1

DMx

1.1 DMx - Disk Masher eXchange

DMx

Disk Masher eXchange

Version 1.0

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Concept by David Lascelles

Contents:

Introduction - An introduction to DMx

Features - An overview of features in DMx

System Requirements - What do you need to run DMx?

Overview - An overview of the DMx system

Installation - How to install DMx

Usage - Using DMx

Directory Utilities - Linking DMx to a Directory Utility

Technical Information - What goes on behind the scenes?

Hints and Tips - Hints and tips on using DMx

Revision History - What happened between versions?

Thanks and Salutations - Cheers lads!

Contacting the Author - Contact me!

1.2 introduction

Introduction

Although xDM is a far superior product to DMS for compressing disks, the most common disk image archive format at the moment is DMS.

DMx was created to help anyone upgrading from DMS to xDM convert their collection of archives as quick and painless as possible.

DMx is a 100% system friendly package, written in AmigaDOS Scripting language for total compatibility, no matter what your system. Because of this, unlike other disk archive converters, DMx doesn't crash when presented with strange configurations.

DMx also allows you to get on with whatever other tasks you have in hand, through it's fully multitasking design, which doesn't hog the system.

1.3 features

Features

- Has a version with it's own, easy-to-use, mouse driven GUI and a version with a CLI interface for easy inclusion into a Directory Opus (or other directory utility)
- Fully multitasking and OS friendly
- No external libraries required
- Full error checking and handling within the script to stop problems before they even occur
- Extensive AmigaGuide documentation, written in plain, clear English
- Installer script that uses the official "Installer" program
- Established for some time now, with excellent future support
- Beta tested by 10 beta testers, on many different configurations, from Kickstart/Workbench 2.04 to Kickstart/Workbench 3.1
- Modular design, so it's easy to increase DMx's efficiency

1.4 System Requirements

System Requirements

Hardware:

Any Amiga with...

- Kickstart/Workbench v2.04 or above required for the CLI versions
- Kickstart/Workbench 2.1 or above required for the GUI versions
- The other necessary requirements to run xDM (see the xDM documentation)

Software:

- The software necessary to run xDM (see the xDM documentation)
 - A CLI version of DMS installed in your C: directory (or on a path somewhere) - this must be called "DMS".
-

1.5 overview

Overview

There has always been a need for people to archive whole disks for distribution over the phone lines. The problem arises when you have a non-AmigaDOS standard disk (for example, a lot of demos).

Originally a program called Warp was written and used (mainly in the hacker world) for converting these kind of disks into a single file which could then be sent via a modem. Although Warp achieved its aims, it often produced files larger than the total sum of the parts on disk!

Later on, a program called DMS (Disk MaSher) was developed. Originally a commercial concern with a give-away PD version which was slower and less compressive than the full version, it was quickly adopted by the Amiga community as the de-facto standard for archiving whole disks.

DMS was hi-jacked by software pirates who altered routines and the packing process. They also managed to introduce some incredible bugs which means that these versions of DMS will hang on anything a little out of the ordinary. It also means there is no scheduled or co-ordinated development programme.

In its latest incarnation, it has been renamed to Device MaSher (it's still DMS) and ParCon software have illegally taken over its development. It is, however, still unstable at times and the compression engine is not quite up to what it could be.

All of this leaves a hole in the market!

Enter xDM.

xDM is a superb program for compressing disks, not only utilising some of the fastest disk reading routines, but some of the fast compression routines as well. However, due to the entrenchment of DMS in the Amiga community, it is necessary to offer a swift and painless upgrade system for DMS users.

DMx provides this upgrade route - taking existing DMS archives and converting them to xDM format in a flash (particularly if you use the RAD: option).

DMx was originally coded by David Lascelles in ARexx (but it didn't have a name back then), then re-coded by Adam Chapman, using David's ideas, in AmigaDOS for several reasons, a couple of which were that it provided a commonality between xDM and DMx and it would run, even if ARexx wasn't present on the user's system.

1.6 installation

Installing DMx

To install DMx on your system, simply run the Install_xDM file and follow on screen prompts. The installer uses the official "Installer" program for a familiar interface to aid you.

The Installer script concept is courtesy of Lee Kindness, who wrote the original beta version.

The installer will...

Basics

- Copy "dd" to your C: directory
- Copy PackDev to your C: directory

CLI

- Ask you where you want to install the CLI based programs
- Ask you what CLI based programs you want to install (xDM CLI, xDM CLI for LZX Registered, DMx CLI)
- Install the programs you chose

GUI

- Ask you where you want to install the GUI based programs
- Ask you what GUI based programs you want to install (xDM GUI, xDM GUI for LZX Registered, DMx GUI)
- Install the programs you chose

Documents

- Ask you whether you want to install the documentation
- If you do, it will then copy the document to a directory you select

Temporary Files

- Ask you where you would like to store temporary files

Temporary Files are the files created by the disk reader while it is running. Setting these to a directory in RAM: (typically T: which is normally in RAM:) will increase reading speed, but increase the use of RAM: by upto 880k.

Virtual Memory

- Ask you where you would like virtual memory allocated

Virtual Memory refers to that fact that xDM can send the packing files created by LZX while it is running to disk instead of a file in RAM: This will decrease the amount of RAM used, but lead to an increase in packing time.

NOTE:

Setting both the Temporary Files and Virtual Memory pointers to somewhere in

RAM: will create the fastest possible system for running xDM, while setting both pointers to disk will save as much memory as possible (you should be able to pack disks with 1mb of memory).

BOTH TEMPORARY FILES AND VIRTUAL MEMORY MUST BE SET TO A DEVICE AND NOT A DIRECTORY!!

Automatic Directory Selection

NOTE: This applies only to the GUI versions of xDM

° Ask you where you want to automatically select to compress to

When you compress disks into archives, there is frequently a directory you will store them all in (for example, Term:Uploads/). By setting this choice to that directory, you will only have to enter the filename each time you want to compress a file - the directory will automatically be chosen for you.

° Ask you where you want to automatically scan for archives to uncompress
Similarly, when you want to uncompress an archive, there is often a common directory (for example, Term:Downloads/). By setting this choice to that directory, you will only have to select the archive you want to uncompress, you won't have to worry about navigating directories.

NOTE:

Even if you don't wish to make use of this feature, you must set these options up. If you don't wish to use them, I suggest setting them both to RAM:

1.7 usage

Using DMx

There are 2 versions of DMx.

They are:

- ° **DMx with GUI interface** (DMx_GUI)
- ° **DMx for CLI use** (DMx_CLI)

These programs are designed to be used via either their GUI on the Workbench or from a CLI/Shell.

If you elect to run any of them by using the 'Right-Amiga E' "Execute A Command" option from the Workbench, then be aware that the Tools Output Window created will not automatically close when you leave DMx.

With a little skill they could also be linked to buttons in a directory utility such as Directory Opus, although it is advised to use the CLI versions only for this. (See the section elsewhere in the guide on this).

1.8 Linking DMx to a Directory Utility

Linking DMx to a Directory Utility

As Directory Opus is probably the most common directory utility used, we shall concentrate on linking DMx into it.

Linking DMx to Directory Opus

Use DMx CLI. Set up both a DMx Convert button. Take the following information and set the correct portions of DOpus Config up to match.

DMx Convert

Name : DMx Convert

Type : Batch

Entry: DMx {f} {f} {RsPlease enter temp drive to use} TRACKS {RsPlease enter what tracks to pack (DOS or ALL)}

Flags: OUTPUT WINDOW

DO ALL FILES

Stack: 4096

Close

Delay: -1

For this entry, highlight the DMS archive you wish to convert and click on the DMx Convert button. In the string requester that follows, type in DF0:

DF1: DF2: RAD: or whatever drive you wish to use as the temporary (un)packing drive. In the final string requester, simply enter what tracks to pack - DOS (all AmigaDOS tracks) or ALL (every track).

1.9 Technical Information

Technical Information

DMx converts DMS archives to xDM images. xDM images are simply the contents of a disk, compressed with LZX.

DMx uses a couple of external utilities, called from a controlling AmigaDOS script file to achieve this. "DMS" itself (the CLI version) is used to first unpack the original image, which is then re-read and packed by xDM.

Apart from DMS and xDM, everything else is part of the standard Workbench v2.1+ distribution.

Although DMx is fully multitasking savvy, you cannot run more than one copy of DMx at a time. This will be corrected in a future release. Also, when DMx calls xDM and xDM is reading, writing or (de)compressing, operations elsewhere on your system will slow slightly, because the TaskPriority of the component elements is raised to increase productivity.

1.10 Hints and Tips

Hints and Tips

Out of memory or memory shortage problems

- Packing HighDensity disks requires at least 2mb of RAM.
- Re-run the installer and make sure that the Temporary Directory and Virtual Memory paths are not in RAM:
- Buy extra RAM.

I'm unable to decompress a DMS image

- Is the destination device's size the same as the original device?
(Example: If the original was a HighDensity device, you can only unpack to another HighDensity device or RAD: drive with the equivalent amount of cylinders.

1.11 Revision History

Revision History

This software is freeware although the copyright remains with the author.

If you wish to make any modifications to it, please contact the author.

Version 1.0:

Original launch.

- Works fine - no problems during beta testing.

1.12 Thanks and Salutations

Thanks and Salutations

Thank-You's go out to...

Alan Merritt - For being such a wonderful person

Ian Wilson - For being the beta tester from hell and hatching my stuff onto Aminet for me

David Taylor - For sorting out problems quickly

Calum Metcalfe - For being a drunk, overaged uni student

Jonathan Forbes - For writing such a fast, compressive archiver in LZX

Bruno Costa - For writing 'dd' (e-mail: bruno@impa.br)

Christian Wasner - For writing PackDev
(e-mail: crisi@blackbox.shnet.org)

Salutations go out to...

Everyone at Commodore who has ever had anything to do with AmigaDOS

Everyone at Escom who will have something to do with AmigaDOS

Mark Smiddy for being my DOS Guru

This software would be riddled with bugs if it wasn't for...

The great team of beta-testers that made sure every little thing they found was stomped upon! The beta-testing team consisted of:

Adrian Maggs Andy Dalton Chris Elsworth Ian Chapman

Lee Kindness Leigh Geary Peter Dalling

Cheers to each and every one of you for testing out DMx on as many different (and odd!) configurations as possible!

1.13 Contacting the Author

Contacting The Author

Postal Service

Adam Chapman (DMx)

17, Duchess Grove

Wavendon Gate

Milton Keynes.

MK7 7DG

BBS

The Concrete Cow BBS - (01908) 584961

All speeds to 33,600bps, v.34+ supported

FidoNet: 2:252/344.1

Other Contacts

xDM's chief beta tester:

Ian Wilson - E-mail: ian@iwilson.demon.co.uk

1.14 Using DMx GUI Versions

Using DMx GUI

NOTE: At any time, buttons marked "BACK" will take you to the previous dialog box. Buttons marked "QUIT" will quit DMx.

° After launching DMx GUI, you will be presented with a file requester.

Using this requester, find and select the DMS archive you wish to convert.

° You will now be faced with another file requester. In this requester, find the directory you wish to put the converted archive in and enter the name you wish to give the converted archive - you do not need to enter the ".xDM" extension.

° From here onwards, you must follow the instructions for using xDM GUI, as DMx has called xDM into action and the requesters are the same.

° Finally, DMx will report back to you the original DMS filesize, the xDM filesize and as a result, the saving you have made over the original.

1.15 Using DMx CLI Versions

Using DMx CLI

The command template for DMx CLI is as follows:

```
DMSFILE/A,XDMFILE/A,TEMPDRIVE/A,TRACKS/K,START/K,END/K,MODE/K
```

Where:

DMSFILE/A This is the name of the original DMS archive you wish to convert to xDM format.

XDMFILE/A This is the name of the destination xDM file you wish to convert the DMS file to.

TEMPDRIVE/A This option sets which drive to use for (de)compressing.

Possible options are as supported by AmigaDOS, so any valid

AmigaDOS device can be used, such as:

DF0: DF1: DF2: DF3: RAD:

TRACKS/K This is an optional parameter and the keyword TRACKS must be specified. It determines what xDM actually compresses.

Possible options include:

ALL, DOS, SOME

ALL - this will compress all of the tracks on the disk

(normally, you would use this for demos or non-AmigaDOS disks)

DOS - this will compress only tracks containing something

AmigaDOS can understand. This means that if the disk

isn't completely full then a much faster and smaller

compression is possible. Use this for any standard

AmigaDOS disk.

SOME - this allows you to enter a START and END track number

(details below). When using SOME a START and END

track number must both be defined.

Not entering one of these options (ie - not specifying the

TRACKS keyword) will make DMx default to TRACKS DOS. You do

not need to enter this keyword if you are just decompressing.

It is required only for compression.

For example: TRACKS ALL

Would force DMx to read all of the tracks from the disk.

START/K This is an optional parameter and the keyword START must be

specified. If this option is being used, then the TRACKS

parameter must be set to SOME and an END track must also be

specified. See below.

This allows you to select which track number to begin on rather than beginning at track 0.

For example: START 40

Would start reading/compressing from track 40 on the disk.

END/K This is an optional parameter and the keyword END must be specified. If this option is being used, then the TRACKS parameter must be set to SOME and a START track must also be specified. See above.

This allows you to select which track number to end on rather than ending at track 79.

For example: END 50

Would end reading/compressing at track 50 on the disk.

MODE/K This is an optional parameter and the keyword MODE must be specified. This option allows access to xDM's extended modes.

The only current extended mode is LOWMEM which reduces memory overhead to 1mb (or less) of memory, but requires a harddrive to be present. Useful for people who have little memory, but a large harddrive. You could call this option "virtual memory".

For example: MODE LOWMEM

Would switch on low-memory mode.

This option will utilise both the "temporary directory" and the "virtual memory" settings you chose during installation.

Setting both of these to point at a disk will reduce your memory overheads to 1mb or less. It will impair performance slightly, but is not really noticeable.