

xadmaster

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| | <i>TITLE :</i> xadmaster | | |
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| WRITTEN BY | | August 8, 2022 | |

REVISION HISTORY

| NUMBER | DATE | DESCRIPTION | NAME |
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Chapter 1

xadmaster

1.1 Welcome to the XAD system documentation

```
*****
*                               *
* xadmaster.library - the powerful unarchiving system *
*                               *
*****
```

```
What is it
  Concept and Indroduction
```

```
Why use it
  Use it!
```

```
Examples
  Usage Examples
```

```
Requirements
  XAD system requirements
```

```
Installation
  How to install XAD system
```

```
Clients
  Supported archivers
```

```
Tools
  Shell tools
```

```
GUI
  Graphical user interface
```

```
Developers
  A word to programmers
```

```
Shareware
  xadmaster.library is Shareware
```

Disclaimer
 Read this!

Author
 Contact me

History
 Short system history

Thanks
 Some helpful people

1.2 What is it

The xadmaster.library is the base library of a standard interface ↔
for
dearchiving file and disk archives. Maybe you know xfdmaster.library
already, which is the interface for decrunching crunched data files and
crunched programs. The xadmaster.library is the same, but for archives and
disks.

This library allows to unarchive lots of different archiver formats with
just one archiver tool. If someone makes a nice GUI for xadmaster.library,
it can be used for all the included archiver types. It is no longer needed
to have lots of archivers with lots of options and lots of GUIs and lots
of problems. Only one library and one tool. Besides this xadmaster.library
allows to unarchive very strange archiver types. Some of the older
archivers do not work any longer on newer machines, but xadmaster.library
solves this problem, as there is needed only a short
client
to support a
new format.

Disk archives can be decrunched to devices, memory and files (which results in
ADF format). This is not possible with the most disk archiver programs.

At the moment xadmaster.library does not support two features, which are
used by some disk archiver programs:

- SectorLabels
- RAW disk images

Normally it is easy to expand the disk interface to support these two, but
there are some reasons, why this is not done at the moment:

- There is no way to store SectorLabels or RAW images in IMAGE files without
making them nearly useless.
- There aren't that much archivers supporting that features.
- There aren't really much disk archives really needing SectorLabel
information.
- I did never see a RAW disk archive anywhere, only the archivers itself.

If there is really a need for these features, I will think about implementing
them.

1.3 Why use XAD system

This library system has some advantages:

- It supports lots of different archive types.
- Archivers are internal or in specific clients. No special programs are needed.
- All archivers have the same interface and do their work in same way. There is no need to learn different options for different archivers or work around interface problems of archiver programs.
- The library has a lot of features not supported by most archivers, e.g. unarchiving disks into image files.
- The archiver clients are really short compared to most archiver programs.
- The library can support nearly all possible archivers, also very strange and old ones.
- Adding new archivers is really easy by making a new external client
- .
- Most of the supported archivers are a lot more stable and have better error handling than the archiver programs.

1.4 Usage examples for XAD

The included shell tools allow to access most features of XAD system. Here are some examples, what you may do.

- 1) Extract files from file archives to ram disk:
xadUnFile example.lha RAM:
- 2) List information about file archives:
xadUnFile example.lha INFO
- 3) Extract disk archive to formatted floppy disk:
xadUnDisk example.dms DF0:
- 4) Convert disk archive into ADF format:
xadUnDisk example.dms example.adf
- 5) Extract files from disk archives to ram disk:
xadUnFile example.dms RAM: DARC
- 6) Extract files from adf file to ram disk:
xadUnFile example.adf RAM: DIMG

Surely this is not all it can do! You have lots of options:

- select patterns for files to extract
 - overwrite files or not
 - create directories or not
 - delete incomplete files or not
 - show list output with protection bits or more information
 - display disk archive information texts
 - handle multiple splitted archive files
 - ignore comments, filedates, protection bits, file tree
 - ...
-

1.5 Requirements of XAD system

All executable files in this packet require at least OS version V37 (OS2.0) to do their work.

The xadmaster.library must be in the LIBS: drawer and any needed client in the LIBS:xad drawer.

1.6 What to do to install XAD system

Copy xadmaster.library to LIBS: and the clients to the LIBS:xad drawer. The utility programs can be copied anywhere. Best will be C: drawer.

The source examples and developer files are not needed to use the system. These files are for programmers only.

The included Install script does an easy installation of required components. It does not handle developer stuff.

Registered users get a keyfile to disable the shareware requests. This file needs to be installed following way:

- a) If you have a KEYPATH environment variable, copy it to the directory specified there.
- b) If you have a KEYS: assign, copy it to that directory.
- c) In any other case copy it to S:

1.7 clients

Currently there are following standard clients (internal and external).

Disk archivers

- CrunchDisk XPK and PP based archiver by Klaus Deppisch.
- PackDev XPK based archiver. SectorLabel information of that archiver type is ignored.
- SuperDuper3 Buffer file of SuperDuper3
- xDisk XPK based archiver from Oliver Wagner released with German Amiga Plus magazine
- xMash XPK based archiver
- 1 Zoom, Zoom 5 Zoom disk archiver made by Olaf Barthel. SectorLabel information of that archiver types are ignored.

File archivers

- Amiga+ Unpack Unpack file archiver used for older German "Amiga Plus" coverdisks.
 - AmiPack AMI-Pack file archiver used on German "Amiga Magazin" coverdisks. This client is lots faster than original tool.
 - Arc Very old archiver. Encrypted archives cannot be detected, but password is supported! Arc normally uses upper case passwords!
 - Arj Often used archiver on MS-DOS/Windows machines.
-

- Arj MS-EXE The self executable Arj file format for MS based PC's.
- 4 BZip2 Often used tar-compressor. The format does not store decompressed size, so certain limitations exist on extracting (e.g. no size displayed and extracting to memory may fail).
- GZip This client only supports one-file GZip archives. If no filename is stored in the archive, a default is used.
- LhA The wellknown standard Amiga archiver. This archiver client has been tested with lots of different files and also handles defective archives in a very good way. It handles all archives correctly which crash Stefan Boberg's LhA and later releases, but Stefan's LhA is still faster than this. This client also handles compression methods unknown to Stefan's LhA.
- LhA MS-EXE The self executable LhA file format for MS based PC's.
- LhA SFX The self executable LhA file format from Stefan Boberg.
- LhF Older Amiga archiver by Stefan Pampin.
- 1 LhPak SFX Self extracting archiver used for Zoom 5.x releases.
- 1 LhSFX Seldom used self extracting archiver.
- 2 LZX LZX dearchiver (what else :-).
- MXM-Sim. Arc. Simple self extracting archiver found in Zoom 4.1 archive.
- 3 RAR This archiver is often used on MS-DOS/Windows computers.
- 3 RAR MS-EXE The Self executable RAR files for MS based PC's.
- 1 PComp. PACK Archive format of PCompress.
- 1 S-Omni Old, seldom used selfextracting format.
- S-Pack Old, seldom used archiver format.
- S-Pack SFX Self extraction version of S-Pack.
- Shrink Older Archiver by Matthias Meixner.
- SDS Soft. SFX SDS Software Self Extracting archives (used to distribute DMS utility (1.01 to 1.11)).
- Tar UNIX tar program. For gzipped tar archives, you can first use the Gzip client to extract tar file and afterwards Tar client to extract final files. Sorry, but one-pass TarGZ is impossible.
- WinZip MS-EXE Often used self extracting Zip format on MS-Windows based machines.
- XPk Archive File archive created with XArcTool and xpkarchive.library. This should be the top level of XPk, but never got widely accepted.
- Zip The most often used archiving system.
- Zip MS-EXE Self extracting Zip executables for MS-based machines.
- Zoo Very old archiver.

Mixed archivers

- DMS This archiver supports the complete range of files, which can be produced using DMS. This includes disk images and file archives. Some of these files are corrupt and DMS itself cannot handle them (but this client).
- DMS SFX Self extracting DMS/FMS archives of DMS 2.x including corrupt format of DMS 2.04.

Filesystems

- Amiga Std FS The standard filesystem of Amiga computers in all its 6 forms (OFS and FFS in Normal, International or Dircache mode).
- Sanity OS FS Internal SanityOS filesystem client done by Stuart Caie. This format is used on Sanity demo disks.

- 1) These clients are in external file "Zoom", which is Freeware.
- 2) This client is in external file "LZX", which is Freeware.
- 3) These clients are in external file "RAR", which is Freeware made by Mikolaj Calusinski. These clients requires an MC68020 or better.
- 4) This client is in external file "bzip2", which is under GPL made by Stuart Caie.

Clients can be internal (in the library) or external (in LIBS:xad drawer). External clients can be made by anyone and may also replace the internal clients.

1.8 Included shell tools

To use the `xadmaster.library`, there are some shell tools included in `C` directory. Their docs are in `Docs` directory. See these docs for better understanding.

`exe2zip`

This tool converts zip exe files to zip archives.

`xad2lha`

This tool converts any archive to an lha archive. It uses internal lh5-compression and does not need lha utility.

`xadLibInfo`

Prints information about `xadmaster.library` and supported archiver formats.

`xadUnDisk`

This tool can be used to extract supported disk archives.

`xadUnFile`

This tool can be used to extract files from supported file archives. This is the most needed tool. It can replace all these `unlzx`, `unrar`, `unlzh`, ... programs.

`xadUnFileM`

This one is like `xadUnFile`, but supports to pass multivolume or splitted archives to the XAD system.

`xadList`

A tool like normal `List` command, but additionally prints if a file is an archive and the type of archiver.

These tools can be easily used from within directory managers like `Directory Opus` or `DirWork`.

1.9 Graphical user interface

This distribution does not include any graphical user interfaces. There are programs in Aminet supporting this unarchiving system. And there is

one really nice tool called "Voodoo-X", which can be called "THE GUI" at the moment.

It has been done by Andrew Bell and can be found in Aminet directory util/arc under the name Voodoo-X.lha (and its readme file).

You should try it, if you do not like shell work.

1.10 Developing for XAD system or using xadmaster.library

Carefully read the autodoc files. Normally all important information is written down in these files. Check the include files as well, as these cover lots of comments.

Very few examples are supplied together with that library. The shell tools may help to understand the usage of the master library, the example clients may help to make own clients. There is especially one well documented example client describing the clients internals.

If you have still problems, contact me and I will answer your questions. Normally I use such questions to improve the docs afterwards.

Writing a client needs some knowledge of the archiver the client should support and knowledge of clean Amiga programming. All data must be read and written through input/output functions. There is no end user interface, so the client must handle error conditions, destroyed files and all such cases itself and in an acceptable manor. Of course all clients must be reentrant (as they are used in a library)!

These requirements can be called "good and clean programming style" and are not special to xadmaster.library.

I would like to get clients in C language for portability reasons. For now it is nearly sure, that Amiga computers will change a lot in future. C code has best chances to survive that changes without lot of effort.

1.11 xadmaster.library is Shareware

The xadmaster.library is Shareware with very special conditions. There are no usage restrictions (means this is no Crippleware!), and xadmaster.library use can be implemented into programs without any restrictions.

Only the end users have to pay shareware fee, if using xadmaster.library. There are 3 forms of payment to get a registered user:

- Send US \$20 (or the equivalent cost in DM or Euro) to my snail mail address or use any other more secure transfer system.

My bank can be reached with:

Name: Kreissparkasse Bautzen
Number: 4005141582
BLZ: 855 500 00

- Make detailed bug reports about 3 currently unknown bugs. I decide whether a bug report is counted or not. Mainly this depends on two facts:
 - was the bug already reported
 - does the description help me to find the bugAfter the first report you will get a partly registered user :-)
 - You make an own external client and send me the source and the client for inclusion in next release. Some more are good as well!
- The last form is the most wanted!
- Supply following: name, e-mail, address (multiline), country.
 - And to optimize XAD: processors and OS versions (all you have).

For programmers using xadmaster.library in own applications (f.e. in virus scanners):

- It would be fine, if you would tell me suggestions or bugs, as implementing xadmaster.library use may show you some problems.
- You must state above conditions in your distribution, at a place, where users can read it.
- And please do not forget: Most time you are users as well, so think about above conditions.

NOTE: This conditions only cover the xadmaster.library! External clients may have different legal state. For example LZX and Zoom both are Freeware. So expect clients to have any legal state. You need to check this for every client. Normally the version string in the client should tell you what type it is.

1.12 disclaimer

All contained files are provided "as is" without warranty of any kind, either expressed or implied. The entire risk as to the accuracy of the information herein is assumed by you. I do not warrant, guarantee or make any representations regarding the use of included files in terms of correctness, accuracy, reliability, currentness or otherwise. In no event I will be liable for direct, indirect, incidental or consequential damages resulting from any defect in the included files.

Using this software should not violate any copyrights, but if this is the case, please inform me any the related parts either will be removed or changed to a non-violating form. I will not be liable for trouble resulting in usage of such parts.

1.13 history

xadmaster.library 6.0 (01.04.2000)

- Added SOS client done by Stuart Caie.
 - Added xadUnF script to C directory. It allows to call multiarchives a bit easier, but supports extraction and LIST only. Call it "xadUnF <arc> <dest>" or "xadUnF <arc> INFO", where <arc> is the basename of the archive without extensions.
 - Better support for single file crunchers like GZip and BZip.
-

- Added Arj and "Arj MS-EXE" clients.
- Added XADCF_NOCHECKSIZE and new xadLibInfo version 1.4.
- Added "Zip MS-EXE" client.
- Some code cleanups. Now the error returns of some archivers help much more.
- Added BZip2 external client done by Stuart Caie.
- Updated xadUnFile (1.17) and xadUnDisk (1.7).
- Added lots of new flags and definitions to improve information handling.
- Bug fixes in Zip clients.
- Added LhF client.

xadmaster.library 5.0 (19.02.2000)

- Bug fix in multivolume support and date conversion speedup.
- Added Arc and Zoo archivers.
- Updated xadUnDisk to support FORMAT and disk images. It is version 1.6 now.
- Updated xadUnFileM to support patterns (now version 1.15).
- Added "LhA MS-EXE" client.
- Fixed Installer script.

xadmaster.library 4.0 (18.01.2000)

- Added entry information texts to LhA, Zip, AMPK and "AmigaPlus Unpack". These texts can be displayed using VERBOSE option of xadUnFile.
- Added VERBOSE option to xadUnFile and xadUnFileM.
- The official version now supports keyfiles for registered users.
- Added CrunchDisk client.
- Added xadConvertProtection function.
- Added file extraction from disk images (ADF) and 2 new functions for that purpose.
- Needed to bump version to 4.
- Added AmigaE modules done by Tomasz Wiszkowski
- Updated xadUnfile and xadUnfileM to 1.14 to support new file extraction from disk images.
- Added updated RAR client.

xadmaster.library 3.3 (07.12.1999)

- Updated exe2zip to version 1.1
- Fixed QDOS support for Zip files
- Fixed some errors in Zip client
- Updated xadUnFile and xadUnFileM to 1.12

xadmaster.library 3.1 (02.11.1999)

- Updated xadUnFile and xadUnFileM to 1.11
- Added Zip, "WinZip MS-EXE", GZip clients
- Added exe2zip utility

xadmaster.library 3.0 (27.09.1999)

- File input hook now uses buffered IO which reduces needed time a lot.
 - Fixed problem with initialisation of external clients
 - Added S-Omni, LhSFX and "PCompress PACK" to external Zoom file.
 - Updated xadUnFile and xadUnFileM to version 1.10.
 - Added "XPK Archive", S-Pack and Shrink clients.
 - Added 020+ Version, as Shrink gets a real speedup with that one.
 - Added disturbing Shareware-Requester. Sorry folks, but it seems to be necessary.
 - Added xadStripInfo system, auto data seek for unarchiving and new tag hook access function.
 - Updated xadLibInfo tool.
-

xadmaster.library 2.2 (18.07.1999)

- Added LhA and LhASFX clients
- Updated xadUnFile utility to 1.7 and returned to old style user interface
- Added xadUnFileM utility with new multifile archive interface of last release.

xadmaster.library 2.1 (29.06.1999)

- some fixes for DMS archiver
- fixed bug in Zoom client
- added RAR archiver done by Mikolaj Calusinski
- added new memory allocation function to master library
- added memory copy function to master library
- Added multiple input file support to master library and xadUnFile tool. The xadUnFile tool now explicitly needs DEST and FILE keywords and all extract files must be given using only one pattern. This is due to a limitation of ReadArgs function.
- added renaming feature in case file exists to xadmaster.library and xadUnFile tool
- added master internal free stuff for client data and fixed xadLibInfo to support that new flags

xadmaster.library 1.8 (16.03.1999)

- updated xadUnDisk and xadUnFile tools to version 1.4
- added new "Amiga Plus Unpack" archiver
- added new "AmiPack" archiver
- some little bug fixes and documentation cleanup

xadmaster.library 1.7 (15.02.1999)

- added internal "PackDev" and "MXM-Simple Archive SFX" clients
- added extern Zoom client including "Zoom", "Zoom 5" and "LhPak SFX"
- fixed bug in disk hook
- updated xadUnDisk tool to version 1.3
- LZX client got an external Freeware client

xadmaster.library 1.6 (08.02.1999)

- first official full working release

1.14 author

Please contact me:

```
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* GERMANY +49 (0)3594/706666 * get with finger or from WWW pages *
*****
```

1.15 thanks

There are some people I want to thank for their work (in no order):

Georg Hörmann

The former author of xfdmaster.library. This library is an interface for uncrunching files and gave me the idea to produce xadmaster.library.

Urban Dominik Müller

The former author of xpkmaster.library. This library inspired me a lot especially in design of xadmaster.library. Thanks also that he gave me the sources to improve xpkmaster.library.
Special thanks for managing Aminet and keeping the Amiga community alive.

Andre R. de la Rocha

The author of xDMS. Thanks for his work and the free sources, which made the DMS client a lot easier (but it was still a hard job).
An "Anti-Thanks" to the later DMS authors for producing such an incredible nasty format. Especially DMS 2.04 is a pain.

Ralf Babel

For his "Amiga Guru Book" which helped me a lot during the last 3 years. And also thanks for the questions he answered (sometimes with a short mail "See Guru Book page xxx" :-)

David Tritscher, Dan Fraser

For making the unlzx utility (and the structure comment at end of source code) which helped me to make the LZX client.

Olaf Barthel

The author of Zoom disk archiver for supplying me the source codes of Zoom 5.4, to make the Zoom client possible.

Mikolaj Calusinski

For doing the first external client beside my standard clients. He also got first registered user. And a big thank for his help and really good ideas how to improve the XAD system.

Brad Rogers

For beeing the second registered user and the first one paying the registration fee.

The InfoZip guys

For their InfoZip project and the sources which allowed me to make Zip client. It is impossible to state all the persons here, as this would double the file size. Check ftp.uu.net:/pub/archiving/zip or nearly any other big ftp server for their work.

Herve Dupont

For french translation. This remark is three releases to late, but I did not forget you. :-)

Andrew Bell

For giving me the final cause implementing file extraction from ADF files (disk images). He also sent me source of his UnADF tool to reduce work. And finally for making the wonderful GUI called Voodoo-X.
