# xadmaster

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| | *TITLE* : xadmaster | | | |
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# Chapter 1

# xadmaster

## 1.1   Welcome to the XAD system documentation

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

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## 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.

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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
  CompDisk  Older disk archiver by Olaf Barthel.
  CrunchDisk  XPK and PP based archiver by Klaus Deppisch.
  LhWarp  Older disk archiver by Jonathan Forbes.
  Marc's DiskCr XPK based archiver by Marko Pozarnik.
  PackDev XPK based archiver. SectorLabel information of that archiver
    type is ignored.
  PackDisk  XPK based archiver by Edgar M. Vigdal.
  Savage Comp.  Disk archiver mady by Markus Zeller based on a cracked
    version of LhA by Stefan Boberg.
  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
  Ace   Archiver made by Marcel Lemke. Encrypted files are not
    supported, because of missing decryption code.

      Ace MS-EXE  The self executable Ace file format for MS based PC's.
    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).
    Compress  Sometimes 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.
5 Sensi disk FS Filesystem used on some games made by Sensible Software
    (e.g. Cannon Fodder 1 and Sensible Soccer 1.1)
6 Trackmo FS   Filesystem used on some 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 Calusinksi. They require an MC68020 or better.
4) This client is in external file "bzip2", which is under GPL made by
   Stuart Caie.
5) This client is in external file "SensiDisk", which is Freeware made by
   Ronald van Dijk.
6) This client is in external file "Trackmo-DOS", which is Freeware made
   by Ronald van Dijk.

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.

exe2arc
  This tool converts exe files to 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 easyly 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 they
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 bug
    After 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 7.0 (20.06.2000)
- Some internal fixes.
- Added new bzip2 client version.
- Updated xadUnFile and xadUnFileM.
- Added multiple filesystem support (XAD_STARTCLIENT tag).
- Added new formats to exe2zip and renamed it to exe2arc. Please delete
  exe2zip, if it is installed on your computer.
- Added bugfixed RAR-client.
- Added SensiDisk and Trackmo-DOS clients by Ronald van Dijk.
- Added LhWarp client.
- Added Apple Macintosh fork support. This is not required, but may help
  using transfer archives from and to Apple computers.
- Added "Savage Compressor" client.

xadmaster.library 6.1 (03.05.2000)
- Added PackDisk client.
- Added "Marc's DiskCruncher" client.
- Added CompDisk and Compress clients.
- xad2lha now supports disk archives.
- Added Ace and "Ace MS-EXE" clients.

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
  limitition 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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****************************************************************************
```

## 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.

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  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.

And another person which should not be forgotten:

fIRE^ROYAL
  Well this clever guy distributes a crack skipping my keyfile request.
  Still waiting for someone to make a keyfile generator as this will need
  some brain work. Skipping the request can do nearly every dumb boy. I
  was able to do that when I was 10.