ARCHandler

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ARCHandler

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                              ARCHandler 2.0
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              Disclaimer

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             Author
                        When I'm sad she comes to me
               with a thousand smiles
                she gives to me free

         It's alright, it's alright she says,
            Take anything you want from me,
```

anything.

Jimi Hendrix

1.2 ARCHandler: Disclaimer

Disclaimer

With this document I make no warranties or representations, either
expressed or implied, with respect to the program described herein. The
program and the information presented herein is being supplied on an 'as
is' basis and is expressly subject to change without notice. The entire
risk as to the use of the program and the information presented is assumed
by the user. In no event will I be liable for direct, indirect, incidental,
or consequential damages resulting from any claim arising out of the use of
the program or the information presented herein, even if I have been
advised of the possibilities of such damages.

1.3 ARCHandler: Shareware Notice

ARCHandler is Shareware

This package is released as shareware. This means you can copy it freely as
long as you don't ask any money for it, except perhaps a nominal fee for
copying. If you use this package on a regular base, you should send

me

a

contribution of 500 BEF or USD 20. Send money by International Money Order,
EuroCheck (in BEF!) or Cash.

Magazines that want to include ARCHandler on their coverdisk(s) should also
register ARCHandler (one registration fee) and send one free copy of the
magazine (including disks) to the

author

.

The package is Copyright © Rafael D'Halleweyn, All Rights Reserved. The
author reserves the right to change the status of this package whenever he
finds it appropriate.

This package should not be spread in any other form than an LhA (or
equivalent) archive and all parts of it should be spread together. The
package may not be altered in any way and cannot be used for commercial
purposes without the prior written permission of the author.

Distribution of the program on any medium (CD, floppy, ...) in such a way
that it is ready to be used (eg. as a front-end for a CD-ROM) requires the
permission of the

author

.

The installation-script ('Install') and the extra commands it uses
('FindCommand', 'PrefLanguage' and 'StartARC') are also copyrighted and

can't be used in any other project/archive without the prior written
permission of the author.

1.4 ARCHandler: Introduction

                    Introduction to ARCHandler

            Archives
              (such as
            LhA
              , Zip, Zoo, Tar, ...) are very easy to store and
move large amounts of files. However, if you wish to use the files
contained in the archive you always have to extract the files first.
Secondly, to easily browse through the archive, you have to extract the
whole archive.

Wouldn't it be easier if you could treat archives just like directories:
move to a directory, look which files are in the directory and possibly use
one of those files.

I have already heard a lot of suggestions in this direction, so the idea is
neither mine nor is it original. But I've never seen an implementation, so
I tried to make my own and this is the result.

Currently the ARCHandler only supports
                  lha
                  -archives.

Remember ARCHandler is shareware. Currently the package contains a non-
crippled version. I don't want to start using crippled version and/or
keyfiles. But, if the registration counts are low, I will have to find ways
to protect the work I've put into this project.

1.5 What is an archive?

                 In this text the word archive is used to indicated a group of ↩
                    files, that
are stored in one big file, possibly also containing the file-structure of
the original (directories) and maybe using compression to store the files.

Archives are mainly used to move large amounts of data from one computer to
another (via disk/modem/ftp/...). Archives are also an easy way to store
that data.

The ARCHandler currently only supports
                  lha
                  -archives.

1.6 What is an lha-archive?

LhA is probably the most widely used archiver on the Amiga. ←
It uses a
Lempel-Ziv sliding-window (LZ77) together with dynamic or static Huffman
coding (LZH) the size of the files in the
archive
. Several other
LZH-archives exist for the Amiga (LhArcA, LhArc, LZ, LhEx, ...) and for
UNIX, MS-DOS, Macintosh and Atari machines.

1.7 ARCHandler: Requirements

Requirements to use ARCHandler

ARCHandler currently requires an Amiga running Workbench/Kickstart 2.04 or
higher, it also needs the following libraries (they should be in your LIBS:
directory): 'asl.library' and 'commodities.library'. The program will also
use the 'locale.library' when it is available (Workbench 2.1 and up). To
use the
online-help
you also need the 'amigaguide.library'.

To extract files from
lha-archive
, ARCHandler uses the
'LhA' command (© Stefan Boberg), both the registered and evaluation version
should work.

To test the handler, a few lha-archives can also be very handy :).

1.8 ARCHandler: Starting

Starting ARCHandler

You can place ARCHandler anywhere you want, but if you change the position
of the program, you should always check if it is still able to access the

FILESDIR
-directory (if you installed ARCHandler with the included
installation script this should be no problem).

ARCHandler can be started from the Workbench or from a Shell. You can use
different
arguments
to change the settings of ARCHandler.

If you want to start ARCHandler on every boot-up of your computer you could
place the program in the 'WbStartup' drawer of your startup-partition.

1.9 ARCHandler: Using

                    Using ARCHandler

ARCHandler manifests itself in three different ways:
  –
                the filesystem
                  (access files and archives)
  –
                the graphical user interface
                  (change the settings)
  –
                the commodity
                  (pop up user interface, flush archives)

1.10   ARCHandler: FileSystem

                    The ARCHandler FileSystem

You should be able to use the filesystem (volume and DOS-device) as any
other   Amiga-filesystem (like the one on your floppy/harddisk). The
root-directory of the filesystems contains all the volumes that can be
accessed at that time. When you enter one of these volumes you will see all
the normal files that are on that volume.

The big difference with the original filesystem is that all the archives
are now represented as directories (they can even have there own icon, see

                Workbench support
). Inside these archive-directories you will find all the
files that are in the archive (the may be placed in subdirectories of the
archive-directory).

All the files (real and those in the archives) and directories (real, the
volumes and the archives) on the filesystem can be used as normal files and
directories.

The ARCHandler filesystem has two parts: the DOS-device and the volume. The
DOS-device (this just like 'DF0:') can be used to access the filesystem
from filerequester, directory utilities. The volume (like a disk 'Stuff' in
the device 'DF0:') can be used to access the filesystem from the Workbench.

1.11   ARCHandler: Graphical User Interface

  The ARCHandler Graphical User Interface

ARCHandler has a graphical user interface (with standard GadTools gadgets)
that allows you to change the ARCHandler settings. All the windows (and
gadgets) that the program opens are font and locale sensitive. The
ARCHandler User Interface tries to stick as closely as possible to the
'Amiga User Interface Style Guide'.

The user interface contains multiple windows and requesters. The different

windows never block each other, it is not because another window is opened
that the previous window can no longer be used (they are non-modal). The
requesters that pop up when you use one of the popup-gadgets (these gadgets
have the imagery of an arrow pointing down), do block the window that they
originated from.

All the windows have context sensitive help: position the pointer above the
window or gadget and press the 'Help' key. When a string-gadget is active,
you can get help on the attribute you're editing by pressing 'Help'. You
can also receive help by pressing 'Help' when a button-gadget is depressed
(this also works when the gadget is depressed by using the buttons
shortcut).

The user interface is fully keyboard controlable. The shortcuts for the
gadgets appear in the text of the gadget, the underscored character
represents the shortcut-key. The gadget that has an extra dark border
around its button can also be activated with the 'Return' key. The 'Esc'
key is always a safe way out.

When the the underscored character is a diacretic character or some other
character that has to be generated with multiple key presses and/or
multiple qualifiers (like Shift, Ctrl, Alt), you should only use the last
key and you don't need to use the qualifiers. For example, on a french
keyboard, the gadget '_Élève' can be accessed with the 'é'/'2' key; on a
usa keyboard you would have to press 'e'.

All gadgets react immediatly when they are activated with the keyboard,
except for the button gadgets. The button gadgets will change there state
to indicate that they are selected, the gadget will only react when the key
is released. You can cancel the button gadget when it is already selected,
by pressing an (extra) qualifier.

The user interface also uses popup-gadgets. When you press one of these a
requester will appear, that request some information from you. These
popup-gadgets don't have there own shortcut-key, but you can select these
gadgets by pressing the shortcut-key of the gadget that they are connected
to plus the 'Control' or 'Ctrl' key.

Some windows contain slider gadgets (they allow you to choose a value in a
give range). The normal shortcut-key of these gadgets adds one to the value
of the gadget. When you use the same key together with a 'Shift' key the
value will decrease.

Currently ARCHandler can be used in English, Español (Spanish), Italiano
(Italian), Svenska (Swedish) Português (Portuguese) and Nederlands (Dutch).

1.12 ARCHandler: Commodity

			The ARCHandler Commodity

The   ARCHandler   Commodity   Interface   can   be   used   to pop up the

			graphical user interface
			, with the 'Exchange' program or with the
			Hot Key

.

You can also use the 'Exchange' program to quit the program (note that the
program may not always be able to quit).

The commodity interface can also be used to flush all unused
              archive-lists
              from memory.

You should also note that ARCHandler can not be made inactive: changing the
'Active'/'Inactive' state of ARCHandler with the 'Exchange' program has no
effect. But when ARCHandler is trying to quit it will inactivate its
commodity. At that point ARCHandler can be reactivated by pressing the
hotkey (
              CX_POPKEY
              ,
              HOTKEY
) or by activating the commodity.

1.13 ARCHandler: Arguments

              Arguments

When ARCHandler is started you can specify the settings of the program by
specifying some arguments. ARCHandler will always try to read the tooltypes
in the program's icon (even when started from a Shell). When ARCHandler was
started from a Shell it will also read the specified arguments from the
commandline (with ReadArgs()), overriding the arguments specified in the
icon.

ARCHandler recognizes the following arguments:

              CX_POPUP

              CX_POPKEY

              CX_PRIORITY

              FLUSHKEY

              DEVICENAME

              VOLUMENAME

              ONLYEXTENSION

              PRIORITY

              SCANDELAY

              BUFFERS

              TEMPDIR

              FILESDIR

LHACOMMAND

IGNOREVOLUMES
When you use ARCHandler from the Workbench, you can change or ←
add these
arguments by changing or adding the Tool Type (with the same name) in the
window that appears when you select the 'Information...' menu-item.

When you use ARCHandler from a Shell you can also use the Tool Types, but
you also override the Tool Types by specifying some arguments on the
commandline. ARCHandler uses this template:

```
CX_POPUP/K,CX_POPKEY/K,CX_PRIORITY/K/N,FLUSHKEY/K,DEVICENAME=DEV/K,
VOLUMENAME=VOL/K,ONLYEXTENSION=ONLYEXT/S,PRIORITY/K/N,SCANDELAY/K/N,
BUFFERS/K/N,TEMPDIR/K,FILESDIR/K,LHACOMMAND=LHA/K,IGNOREVOLUMES/K
```

ARCHandler tries to save its settings in the program's icon as Tool Types
(even when started from a Shell). The icon is thus used as the
configuration file.

1.14 ARCHandler: CX_POPUP argument

CX_POPUP

With CX_POPUP you can choose if ARCHandler will pop up its
Main Window
when it is started. You should specify 'YES' or 'ON' if you do ←
want this
window to be opened. Otherwise you have to use 'CX_POPUP=NO' or
'CX_POPUP=OFF'.

This argument defaults to 'YES'.

This setting can also be changed with the
Pop Up
gadget in the

Commodity Preferences
window.

1.15 ARCHandler: CX_POPKEY argument

CX_POPKEY

With CX_POPKEY you specify the key combination that can be used to pop up
ARCHandler's
Main Window
when the program is already running. This
argument should be a standard Commodities key combination as described in
'Acceptable Key Combinations' of the 'Commodities Drawer' section of the
'Workbench User's Guide'.

When you specify an empty string for this argument, ARCHandler won't
generate a pop up key.

This argument defaults to 'Ctrl Alt a' on Workbench 2.1 and higher, on
Workbench 2.04 'Control Alt a' is used.

This setting can also be changed with the
                Hot Key
                  gadget in the

                Commodity Preferences
                 window.

1.16 ARCHandler: CX_PRIORITY argument

                    CX_PRIORITY

With CX_PRIORITY you pick the priority of the ARCHandler Commodity in the
chain of all the running commodities. This argument should be a number
between -10 and 10.

This arguments defaults to 0.

This setting can also be changed with the
                Priority
                  gadget in the

                Commodity Preferences
                 window.

1.17 ARCHandler: FLUSHKEY argument

                    FLUSHKEY

With FLUSHKEY you specify the key combination that can be used to flush all
the unused
                archive-file-lists
                  from memory. This argument should be a
standard Commodities key combination as described in 'Acceptable Key
Combinations' of the 'Commodities Drawer' section of the 'Workbench User's
Guide'.

When you specify an empty string for this argument, ARCHandler won't create
a flush key.

This argument defaults to 'Ctrl Alt f' on Workbench 2.1 and higher, on
Workbench 2.04 'Control Alt f' is used.

This setting can also be changed with the
                Flush Key
                  gadget in the

Commodity Preferences
window.

1.18   ARCHandler: DEVICENAME argument

DEVICENAME

The DEVICENAME argument can be used to specify the name of the ARCHandler

DOS-device
. This is the name that will appear in the 'Unit' field of the
output of the 'Info' command. This argument should be a string, without a
colon (':')! (You can compare this name with the name 'DF0:' for the first
internal floppy drive.)

This argument defaults to 'ARC'.

This setting can also be changed with the
Device Name
gadget in the

Device Preferences
window.

1.19   ARCHandler: VOLUMENAME argument

VOLUMENAME

With the VOLUMENAME argument you can choose the name for the ARCHandler

volume
. This is the name that will appear in the Workbench. This ←
argument
should be a string, without a colon (':')! (You can compare this name with
the name of a floppy 'Stuff' inserted in any floppy drive.)

This argument defaults to 'Archives'.

This setting can also be changed with the
Volume Name
gadget in the

Device Preferences
window.

1.20   ARCHandler: ONLYEXTENSION option

ONLYEXTENSION

With the ONLYEXTENSION you select the method that ARCHandler will use to
recognize archives. This argument is a switch, when you specify the
argument, the option is on, otherwise it is off.

When the ONLYEXTENSION is specified, ARCHandler recognises archives by only
looking at their file-extension ('.lha' or '.lzh' for
                  LhA-archives
).

When the ONLYEXTENSION is not specified, ARCHandler first checks the
file-extension, if the extension matches the archive is opened and the
contents is checked.

The ONLYEXTENSION option makes directory scanning much faster, but it has
the disadventage that files ending in an archive-extension will be
recognized as an archive, even if it is not.

By default both the file-extension and the file contents are checked.

This setting can also be changed with the
                  Only Extension Check
                   gadget in
the
                  Device Preferences
                   window.

1.21 ARCHandler: PRIORITY argument

PRIORITY

The PRIORITY argument is used to specify the priority of the ARCHandler
process. This process handles all the
                  filesystem
                   actions and also handles
the
                  windows
                  . This argument should be a number between −5 and +15. By
specifying a higher number, the filesystem will have a relative faster
response time on a busy system.

Normally, filesystems have a higher priority then other processes because
other processes have to wait on these filesystems. This argument defaults
to 7.

Note that this argument does not change the extraction time of archives. To
extract archives, ARCHandler generates a new process at priority zero.

This setting can also be changed with the
                  Task Priority
                   gadget in the

                  Device Preferences

                      window.

Note   that   PRIORITY   and
                CX_PRIORITY
                   are   used to change two different
properties!

1.22   ARCHandler: SCANDELAY argument

                    SCANDELAY

Because the ARCHandler
                filesystem
                 has all the volumes in its root volume,
it has to scan the AmigaDOS list of volumes. Because new volumes can be
created or inserted, or the name of the current volumes can be changed,
this scanning has to be repeated. Normally, when a new volume is inserted,
its filesystem will generate a DISKINSERTED event (or DISKREMOVED when a
volume is removed). ARCHandler will also catch these events and then start
to scan the AmigaDOS volume list.

This argument should be a number between 1 and 9. This specifies the number
of seconds between each scan. This argument defaults to 4 seconds.

This setting can also be changed with the
                Scan Delay
                 gadget in the

                Device Preferences
                 window.

1.23   ARCHandler: BUFFERS argument

                    BUFFERS

Whenever an archive is accessed, ARCHandler makes a list of all the files
and directories in that archive (
                archive-file-list
). This list is freed
when this information is no longer needed. Filerequesters and directory
utilities tend to lock a directory, scan its contents and then free the
lock. When one of the subdirectories is selected, the filerequester or
directory utility will then lock that subdirectory and scan it.

To prevent ARCHandler from remaking the list of files and directories in an
archive on each archive access, a certain number of unused archive-lists
are kept in memory (in a least-recently-used cache).

With the BUFFERS argument you specify the number of unused archive-lists
that are kept in memory. This should be a number between 0 and 9. It
defaults to 2.

This setting can also be changed with the
                Buffers
                  gadget in the

                Device Preferences
                 window.

1.24   ARCHandler: TEMPDIR argument

                TEMPDIR

When you (or a program) open a file in an archive, this file is extracted
and temporarily stored in a directory. When the file is closed the
extracted file is deleted from the directory.

With the TEMPDIR argument you can specify which directory ARCHandler should
use to store these temporary files. By default ARCHandler uses 'T:'. When
you place this directory on the 'Ram Disk:' files will be extracted faster
(by default 'T:' is placed on 'Ram Disk:').

This setting can also be changed with the
                Temporary Files
                 gadget in the

                Device Preferences
                 window.

1.25   ARCHandler: FILESDIR argument

                FILESDIR

To make it easy to access files from the
                Workbench
                 , ARCHandler adds some
extra files to the filesystem. These files are normally stored in the
directory 'PROGDIR:ARCFiles' ('PROGDIR:' is the directory where ARCHandler
is placed). With this argument you can specify an another directory.

All the files that are placed in this directory can be accessed from the
root of the filesystem. Only 'Disk.info' and '.backdrop' will be visible
(when you examine the root 'List ARC:'). You can use this to add a
'Node.rinfo' file, for the ParNET package.

By default ARCHandler uses the 'PROGDIR:ARCFiles' directory.

This setting can also be changed with the
                Extra Files
                 gadget in the

                Device Preferences
                 window.

1.26   ARCHandler: LHACOMMAND argument

LHACOMMAND

With the LHACOMMAND you can specify the position of the 'LhA' command.
Normally ARCHandler will find 'LhA' if it is placed in one of the
directories that C: is assigned to. If 'LhA' is not in such a drawer, you
can specify the position with this argument.

When you use the included install script, it will search for the position
of 'LhA' and write in in ARCHandlers tooltype.

By default ARCHandler uses 'LhA', this will find 'LhA' if it is placed in
one of the directories that C: is assigned to.

This argument can't be changed with the
                graphical user interface
                , but when
ARCHandler is installed the installation script will set this argument.

1.27   ARCHandler: IGNOREVOLUMES argument

IGNOREVOLUMES

With this argument you can specify the volumes that should not be placed in
the filesystem's root directory.

This argument can't be changed with the
                graphical user interface
                .

1.28   ARCHandler: Windows

ARCHandler Windows

The ARCHandler
                Graphical User Interface
                consists of three windows and
three different kinds of requesters:

                Main Window

                Device Preferences Window

                Commodity Preferences Window

                Message Requesters

                Directory Requesters

                Key Combination Requesters

The windows don't block each other: you're able to use several ←
windows at
the same time. The requesters do block the window the originated from, this
window will receive a standard wait-pointer.

1.29   ARCHandler: Main Window

Main Window

From the Main Window you can access the other windows. This window can be
opened by pressing the hot key;
            CX_POPKEY
            ,
            HOTKEY
            .

  preview:

            Preferences

             Device...

            Commodity...

            Flush

            About...

            Hide

            Quit

1.30   ARCHandler: MainWindow/Device Gadget

Device...

This gadget opens the
            Device Preferences
             window.

1.31   ARCHandler: MainWindow/Device Gadget

Commodity...

This gadget opens the
            Commodity Preferences
             window.

1.32   ARCHandler: Main Window/Flush Gadget

                    Flush

You can use this gadget to flush unused
              archive-lists
                from memory.

1.33   ARCHandler: Main Window/About Gadget

                    About...

This will open a
              message requester
                  that gives some information about
ARCHandler. It also tells you which language ARCHandler is using.

1.34   ARCHandler: Main Window/Hide Gadget

   Hide

When this gadget is used ARCHandler will try to close all its windows. It
is possible that some windows can not be closed because they are blocked by
a requester.

1.35   ARCHandler: Main Window/Quit Gadget

                   Quit

With this gadget you can
              quit
                ARCHandler. ARCHandler will first check if
nobody is still using ARCHandler, after that it will try to close all its
windows.

1.36   ARCHandler: Device Preferences

                  Device Preferences Window

The Device Preferences Window is used to change several device settings.

   preview:

     Device Name
               ARC
                   Task Priority
                   #

```
                7
   Volume Name
                Archives
                 Volume Scan Delay
                 #
                4 s
   Only Check Extension

                           Buffers
                 #
                2
  Temporary Files
                T:
              v
                    Extra Files
               PROGDIR:ARCFiles
              v

                Save

                Use

                Cancel
```

1.37   ARCHandler: Device Preferences/Device Name Gadget

                Device Name

With this string gadget you can change the   name   of   the ARCHandler
DOS-device. The name of the DOS-device will only be changed when ARCHandler
is restarted, so you should use
                Save
                 when you change this.

When the settings are saved the Device Name is stored in the
                DEVICENAME
                argument.

1.38   ARCHandler: Device Preferences/Volume Name Gadget

                Volume Name

With this string gadget you can change the name of the ARCHandler volume.
When you
                Use
                 this new name, this has the same effect as the 'Relabel'
command.

When the settings are saved the Volume Name is stored in the
                VOLUMENAME
                argument.

1.39   ARCHandler: Device Preferences/Only Extension Check Gadget

                    Only Extension Check

This checkbox can be used to select the method ARCHandler uses to recognize
archives: when this option is turned on, ARCHandler recognises archives by
only looking at there file-extension ('.lha' or '.lzh' for
                LhA-archives
).
Otherwise, ARCHandler first checks the file-extension, if the extension
matches the archive is opened and the contents is checked.

When the settings are saved the state is stored in the
                ONLYEXTENSION
                argument.

1.40   ARCHandler: Device Preferences/Task Priority Gadget

                    Task Priority

With this slider gadget you select the priority of the ARCHandler process.
This process handles all the
                filesystem
                  actions and also handles the

                windows
                . The priority should be a number between -5 and +15. By
specifying a higher number, the filesystem will have a relative faster
response time on a busy system.

Normally, filesystems have a higher priority then other processes because
other processes have to wait on these filesystems.

Note that this priority does not change the extraction time of archives. To
extract archives, ARCHandler generates a new process at priority zero.

When the settings are saved the priority is stored in the
                PRIORITY
                argument.

1.41   ARCHandler: Device Preferences/Volume Scan Delay Gadget

                    Volume Scan Delay

Because the ARCHandler
                filesystem
                 has all the volumes in its root volume,
it has to scan the AmigaDOS list of volumes. Because new volumes can be
created or inserted, or the name of the current volumes can be changed,
this scanning has to be repeated. Normally, when a new volume is inserted,
its filesystem will generate a DISKINSERTED event (or DISKREMOVED when a
volume is removed). ARCHandler will also catch these events and then start

to scan the AmigaDOS volume list.

This slider gadget is used to select the number of seconds between each
AmigaDOS volume list scan.

When the settings are saved the scan delay is stored in the
            SCANDELAY
            argument.

1.42 ARCHandler: Device Preferences/Buffers Gadget

            Buffers

Whenever an archive is accessed, ARCHandler makes a list of all the files
and directories in that archive (
            archive-file-list
). This list is freed
when this information is no longer needed. Filerequesters and directory
utilities tend to lock a directory, scan its contents and then free the
lock. When one of the subdirectories is selected, the filerequester or
directory utility will then lock that subdirectory and scan it.

To prevent ARCHandler from remaking the list of files and directories in an
archive on each archive access, a certain number of unused archive-lists
are kept in memory (in a least-recently-used cache).

With this slider gadget you select the number of unused
            archive-file-lists
            that are kept in memory.

When the settings are saved the number of archive-file-lists is stored in
the
            BUFFERS
             argument.

1.43 ARCHandler: Device Preferences/Temporary Files Gadget

            Temporary Files

When you (or a program) open a file in an archive, this file is extracted
and temporarily stored in a directory. When the file is closed the
extracted file is deleted from the directory.

With the Temporary Files string-gadget you can specify which directory
ARCHandler should use to store these temporary files. By pressing the
popup-gadget behind the string-gadget you can use the
            Directory Requester
            to pick this directory.

When the settings are saved the temporary files directory is stored in the

            TEMPDIR

argument.

1.44   ARCHandler: Device Preferences/Extra Files Gadget

Extra Files

To make it easy to access files from the
Workbench
, ARCHandler adds some
extra files to the filesystem.

You can use the Extra Files string-gadget to change this directory. By
pressing the popup-gadget behind the string-gadget you can use the

Directory Requester
to pick this directory.

When the settings are saved the extra files directory is stored in the

FILESDIR
argument.

1.45   ARCHandler: Device Preferences/Save Gadget

Save

You can use this gadget to permanently save the Device Preferences. These
settings will be saved in the tooltypes of the ARCHandler-icon.

1.46   ARCHandler: Device Preferences/Use Gadget

Use

When you use this gadget to close the Device Preferences window the new
settings will be used but not saved.

1.47   ARCHandler: Device Preferences/Cancel Gadget

Cancel

When you select this gadget to leave the Device Preferences window all the
changes that you made to the Device Preferences will be discarded. The same
thing happens when you use the windows close-gadget.

1.48 ARCHandler: Commodity Preferences

Commodity Preferences Window

The Commodity Preferences Window is used to change several commodity
settings.

preview:

        Hot Key
                Ctrl Alt a
            v
                    Flush Key
                Ctrl Alt f
            v
                    Priority
                            #
                0
        Pop up

                Save

                Use

                Cancel

1.49 ARCHandler: Commodity Preferences/Hot Key Gadget

                Hot Key

This string-gadget is used to change the key combination that can be used
to pop up ARCHandler's
                Main Window
                . By pressing the popup-gadget behind
the string-gadget you can use the
                Key Combination Requester
                 to pick this
key description.

When you specify an empty string ARCHandler won't generate a pop up key.

When the settings are saved the hot key description is stored in the

                CX_POPKEY
                 argument.

1.50 ARCHandler: Commodity Preferences/Flush Key Gadget

                Flush Key

This string-gadget is used to change the key combination that can be used

to flush all   the unused
                archive-file-lists
                 from memory. By pressing the
popup-gadget   behind   the   string-gadget   you   can   use   the

                Key Combination Requester
                 to pick this key description.

When you specify an empty string for this argument, ARCHandler won't create
a flush key.

When the settings are saved the flush key description is stored in the

                FLUSHKEY
                 argument.

1.51   ARCHandler: Commodity Preferences/Priority Gadget

                Priority

With this slider-gadget you select the priority of the ARChandler Commodity
in the chain of all the running commodities.

The priority of the commodity will only be changed when ARCHandler is
restarted, so you should use
                Save
                 when you change this.

When the settings are saved the priority is stored in the
                CX_PRIORITY
                 argument.

1.52   ARCHandler: Commodity Preferences/Pop Up Gadget

                Pop Up

With checkbox you can choose if ARCHandler will pop up its
                Main Window
                 when it is started.

When the settings are saved the popup-state is stored in the
                CX_POPUP
                 argument.

1.53   ARCHandler: Commodity Preferences/Save Gadget

   Save

You can use this gadget to permanently save the Commodity Preferences.
These settings will be saved in the tooltypes of the ARCHandler-icon.

1.54   ARCHandler: Commodity Preferences/Use Gadget

```
  Use
```

When you use this gadget to close the Commodity Preferences window the new
settings will be used but not saved.

1.55   ARCHandler: Commodity Preferences/Cancel Gadget

```
  Cancel
```

When you select this gadget to leave the Commodity Preferences window all
the changes that you made to the Commodity Preferences will be discarded.
The same thing happens when you use the windows close-gadget.

1.56   ARCHandler: Message Requesters

```
        Message Requesters
```

ARCHandler uses several Message Requesters to communicate with the user.
These requester are fully keyboard controlable. The shortcuts are specified
by the underscored characters in the gadgets. The default gadget has an
extra dark border.

```
        About

        ARCHandler can't quit

        Archive is corrupt

        Name has colon

        Can't lock as directory

        Directory shouldn't be on ARC

        Is not a directory

        Key can't be created

        LhA not found

        Setting can't be changed

        Settings couldn't be saved
```

1.57   ARCHandler: Message Requester/About

About

This requester tells you which version of ARCHandler you are using and what
language it is using.

1.58   ARCHandler: Message Requester/ARCHandler can't quit

ARCHandler can't quit

This requester will be used when you ask ARCHandler to
                quit
                 (with the

                Quit
                -gadget, with the Exchange program or by sending a ACTION_KILL), ←
                     but
ARCHandler isn't able to quit. The requester text will tell you why
ARCHandler can't quit at that moment.

When you ask ARCHandler to quit it will try to close all its windows. It
may not be able to close a window because it is locked by a requester.

It is also possible that ARCHandler can't quit because somebody is still
using the ARCHandler
                filesystem
                . In this case the requester will contain
the number of files, locks and/or archives that are still in use.

When a program crashes while it is using the ARCHandler filesystem,
ARCHandler will never be able to quit.

1.59   ARCHandler: Message Requester/Archive is corrupt

Archive is corrupt

This requester is used when an archive is corrupt or is not really an
archive (the option
                ONLYEXTENSION
                 or
                Only Extension Check
                 is turned on).

1.60   ARCHandler: Message Requester/Name has colon

Name has colon

The
                Device Name
                 or the

```
                 Volume Name
                  should not contain a colon (':').
```

1.61   ARCHandler: Message Requester/Can't lock as directory

```
                    Can't lock as directory
```

The   directory you specified in the
                 Temporary Files
                  or
                 Extra Files
                  string-
gadget does no exist or it couldn't be accessed.

1.62   ARCHandler: Message Requester/Directory shouldn't be on ARC

```
                   Directory shouldn't be on ARC
```

The   directory you specified in the
                 Temporary Files
                  or
                 Extra Files
                  string-
gadget is placed on the ARC
                 filesystem
                 . Both these directories should be
placed on a filesystem that ARCHandler can use directly.

1.63   ARCHandler: Message Requester/Is not a directory

```
                   Is not a directory
```

The path you specified in the
                 Temporary Files
                  or
                 Extra Files
                  string-
gadget is not a directory.

1.64   ARCHandler: Message Requester/Key can't be created

```
                   Key can't be created
```

The key description you specified in
                 Hot Key
                  or
                 Flush Key

                                string-gadget is
not valid, or there wasn't enough memory to create the commodity object.

1.65 ARCHandler: Message Requester/LhA not found

                      LhA not found

ARCHandler needs LhA to extract files from
                lha
                -archives. When you have
used the Install script to install ARCHandler the
                LHACOMMAND
                 tooltype
should contain the correct path of LhA. If you have changed the position of
LhA or haven't used the included Install script, ARCHandler won't be able
to find LhA. You should use the LHACOMMAND-tooltype to tell ARCHandler to
full path to ARCHandler (use 'Work:Tools/LhA' and not 'Work:Tools/').

1.66 ARCHandler: Message Requester/Setting can't be changed

                      Setting can't be changed

The name of the DOS-device and the priority of the commodity can't be
changed while ARCHandler is running. When you change these settings with
the
                Device Name
                  string-gadget or the
                Priority
                 slider-gadget, ARCHandler
will use this requester to inform you that these settings are not changed.

1.67 ARCHandler: Message Requester/Settings couldn't be saved

  Settings couldn't be saved

The requester will contain the specific reason why the settings couldn't be
saved. When ARCHandler is started from the CLI it won't be able to save its
settings when there's no icon for the program.

1.68 ARCHandler: Directory Requesters

                Directory Requesters

The
                Temporary Files
                  or
                Extra Files

```
               string-gadget can be changed with a
directory    requester.   When    you    press   the  popup-gadget   behind   the
string-gadget  a  directory  requester  will be opened. This requester will
block the
               Device Preferences
                window.
```

1.69 ARCHandler: Key Combination Requesters

```
           Key Combination Requesters
```

The

```
               Hot Key
                 or
               Flush Key
                string-gadget  can  be  changed  with the key
requester.  This  requester  allows  you  to  specify  a key combination by
pressing that key/those keys on the keyboard.
```

```
  preview:
```

```
                Get
                Nothing

                Ok

                Cancel
               This requester will block the
               Commodity Preferences
                window.
```

1.70 ARCHandler: Key Combination Requesters/Get Gadget

```
  Get
```

```
When  you  press  the  'Get'  button  the  requester  will use the next key
combination that you press.
```

1.71 ARCHandler: Key Combination Requesters/Nothing Gadget

```
               Nothing
```

```
With  the  'Nothing' button you can delete the current key combination. You
can  use  this  when you don't want to use a key combination for
               Pop Up
                or

               Flush
                .
```

1.72 ARCHandler: Key Combination Requesters/Ok Gadget

                    Ok

When you leave the Key Combination Requester with the 'Ok' button, the key
combination that is in the requester will be copied to the string gadget;

              Hot Key
               or
              Flush Key

              .

1.73 ARCHandler: Key Combination Requesters/Cancel Gadget

                    Cancel

When you leave the Key Combination Requester with the 'Ok' button, the key
combination in the string gadget (
              Hot Key
               or
              Flush Key
) won't be changed.

1.74 ARCHandler: Workbench Support

                  Workbench support

To be able to easily access the ARCHandler through the Workbench, the
handler adds extra files:

 ·In the root of the ARCHandler volume there is a disk-icon 'Disk.info'.
  You can 'Snapshot' the position of the icon and the window (use
  'Snapshot» Window') and you can edit the icon (with IconEdit).

 ·In the root of the volume there are also drawer-icons for the other
  volumes. These icons are created from the original disk-icon on that
  volume. If this icon does not exist, ARCHandler will use it's default
  volume-icon (if this default icon does not exist the volumes without
  there own disk-icon will not be visible from the Workbench). Only the
  icon of volumes that don't have there own disk-icon can be written to
  (but ARCHandler will always remove the position information in these
  icons, otherwise they would overlap).

 ·For all the archives the handler recognizes a drawer-icon is added.
  You can write to this icon, but the
                filesystem
                 will remove the
  position information (otherwise all archive-icons would overlap). These
  icons can't be deleted.

 ·In the root of the filesystem a '.backdrop'-file is added. You can use
  this file to 'Leave Out' ('Icons' menu item of the Workbench) files and

    drawers.

All these files are stored in the
                 FILESDIR
                  directory. The 'archive-icon'
is stored in the 'Drawer.info' file and the default volume-icon is stored
in 'Volume.info'. If you want to change these files it's best to change
them through the ARCHandler filesystem.

You can also add other files to the
                 FILESDIR
                  directory, you will then be
able to access these files from the root-directory. These files won't be
visible in the root-directory ('List ARC:' won't show these files); you
could use this to add a 'Node.rinfo' file, for the ParNET package.

1.75 ARCHandler: Tips for Using

                      Tips for Using ARCHandler

                   Online help

                   Faster ARCHandler

                   Quitting ARCHandler

                   MultiUser and ARCHandler

1.76 ARCHandler: Online Help

  Online Help

ARCHandler is able to give you help on the current window or requester:
activate the window or requester and press the 'Help' key.

To be able to use the online help, the documentation should be installed.
The install script allows you to install the documentation. ARCHandler will
only load the documentation after you have pressed the 'Help' key.

Online help is available in all windows and requesters (except the file
requester).

I you didn't no select to install the 'Help files' then ARCHandler won't be
able to open this document, and I won't give you any help.

1.77 ARCHandler: Faster

                    Faster ARCHandler

You can speed-up the extraction of files by making LhA resident. Add a
'Resident >NIL: <path-to-lha>/LhA' to your 'User-Startup' and change the

                LHACOMMAND
                 to 'LhA' (without path).

A diskcache on the volume that you are accessing will also give you a big
speed increase.

1.78 ARCHandler: Quitting

                    Quitting ARCHandler

Before you can quit ARCHandler you should quit all programs that are using
ARCHandler, or at least change there current-directory and close any files
that they are using on the filesystem.

When ARCHandler is asked to quit it will simulate a disk removal to
encourage all programs using ARCHandler to free the locks the have on the

                filesystem
                     and it will start to free its own resources. Some programs
don't support this (for example a shell with a directory on the filesystem
as its current directory). If you are in this situation you can ask
ARCHandler to reactivate itself so the filesystem can be used again.

ARCHandler can be reactivated by pressing the hotkey (
                CX_POPKEY
                ,
                HOTKEY
                ),
by activating the commodity from the Exchange program or by sending a
ACTION_DISK_CHANGE (DiskChange) packet

Note that it is possibly dangerous to remove the filesystem. I have never
had any trouble when quitting ARCHandler. But, since ARCHandler can't now
if another process has called DeviceProc() on it, it is possible that the
other process uses the returned message-port after ARCHandler has quit.

When a program that was using ARCHandler crashed before it was able to free
all the locks and files ARCHandler will never be able to quit.

1.79 ARCHandler: MultiUser

                    MultiUser and ARCHandler

Currently ARCHandler doesn't have full MultiUser support. But this is a
list of precautions you should take when you are installing ARCHandler on a
MultiUser system.

Don't set the u-bit of the ARCHandler executable. If you would set the
u-bit all users will be able to access all the files that the owner of the
ARCHandler executable can access.

Use
                IGNOREVOLUMES
                    to prevent ARCHandler form using any MAssign volumes.
The MAssign volumes that are available through ARCHandler will reflect the
access to such a volume by the owner of the ARCHandler task.

1.80 ARCHandler: Support Commands

                Support Commands

The ARCHandler archive contains several support commands:

                FromARC

                ToARC
                The DiskMaster directory of the ARCHandler package contains ←
                    similar ARexx
scripts for use with DiskMaster (DiskMaster by Greg Cunningham, Copyright
Progressive Periperals Inc.). With a little ARexx experience you should be
able to write replacements for Directory Opus.

1.81 ARCHandler: FromARC

  FromARC

FromARC is a shell command that changes the current directory back to the
original volume. It will also strip all directories from the current
directory that are not valid on the original volume. The command takes no
arguments.

Example:
When the current directory is 'Archives:Work/NewStuff/AmiCDROM-1.12.lha'
and you execute the 'FromARC' command, the current directory will be
changed to 'Work:NewStuff' (note that FromARC also strips all the
directories that are not valid on the original volume).

The FromARC and ToARC commands can only be installed when you select
'Expert User' in the installation script.

1.82 ARCHandler: ToARC

  ToARC

ToARC is a shell command that changes the current directory of the shell to

the same directory on the ARC volume. The ToARC command has the following template:

                         ToARC DEVICE/K,DIR

The DEVICE argument defaults to 'ARC:'. With the DIR argument you may specify a directory/archive to enter.

Example:
When the current directory is 'Work:NewStuff' and this directory contains the archive 'AmiCDROM-1.12.lha', then it's possible to enter this archive with the 'ToARC AmiCDROM-1.12.lha'. After this command the current directory will have changed to 'Archives:Work/NewStuff/AmiCDROM-1.12.lha'.

The FromARC and ToARC commands can only be installed when you select 'Expert User' in the installation script.

1.83   ARCHandler: Technical Information

              Some technical background

            Archive-file-lists

              Packet types

1.84   ARCHandler: Archive-file-lists

              Archive-file-lists

When an archive is accessed for the first time ARCHandler will scan the contents of the archive for the files and directories that it contains. This list is kept in an archive-file-list.

Several of these archive-file-lists are kept in memory, even if they are not in use. The unused lists are kept in memory because otherwise ARCHandler would have to rescan the archive contents on each access (directory utilities and file requesters don't keep locks on the directory that they display).

You can use the
                BUFFERS
                 argument or
                Buffers
                 slider-gadget to specify the
number of unused lists that ARChandler will keep in memory.

1.85   ARCHandler: Packet types

```
                          Packet Types


Currently the ARCHandler filesystem supports the following packet types:
    ACTION_CHANGE_MODE
    ACTION_COPY_DIR
    ACTION_COPY_DIR_FH
    ACTION_CREATE_DIR\textdegree{}
    ACTION_CURRENT_VOLUME
    ACTION_DIE
    ACTION_DISK_INFO
    ACTION_END
    ACTION_EXAMINE_FH
    ACTION_EXAMINE_NEXT
    ACTION_EXAMINE_OBJECT
    ACTION_FH_FROM_LOCK
    ACTION_FINDINPUT
    ACTION_FINDOUTPUT\textdegree{}
    ACTION_FINDUPDATE\textdegree{}
    ACTION_FREE_LOCK
    ACTION_INFO
    ACTION_IS_FILESYSTEM
    ACTION_LOCATE_OBJECT
    ACTION_PARENT
    ACTION_PARENT_FH
    ACTION_READ
    ACTION_RENAME_OBJECT\textdegree{}
    ACTION_RENAME_DISK
    ACTION_SAME_LOCK
    ACTION_SEEK
    ACTION_SET_COMMENT\textdegree{}
    ACTION_SET_DATE\textdegree{}
    ACTION_SET_FILE_SIZE\textdegree{}
    ACTION_SET_OWNER\textdegree{}
    ACTION_SET_PROTECT\textdegree{}
    ACTION_WRITE\textdegree{}

  \textdegree{}not supported in/on non-archive files/directories.



These  two  actions  don't  need  to be implemented because the dos.library
emulates  them  by using ACTION_EXAMINE_OBJECT and ACTION_EXAMINE_NEXT (and
almost nobody uses them):
    ACTION_EXAMINE_ALL
    ACTION_EXAMINE_ALL_END

Actions that may be implemented, if needed:
    ACTION_ADD_NOTIFY
    ACTION_FREE_RECORD
    ACTION_LOCK_RECORD
    ACTION_MAKE_LINK
    ACTION_READ_LINK
    ACTION_REMOVE_NOTIFY

Actions that are not supported:
    ACTION_FORMAT
    ACTION_FLUSH
```

```
    ACTION_MORE_CACHE
    ACTION_INHIBIT
    ACTION_WRITE_PROTECT
```

This is the minimal list of packets that an underlying filesystem should
support, if you want to use it through the ARCHandler:

```
    ACTION_COPY_DIR
    ACTION_END
    ACTION_EXAMINE_NEXT
    ACTION_EXAMINE_OBJECT
    ACTION_FINDINPUT
    ACTION_FREE_LOCK
    ACTION_LOCATE_OBJECT
    ACTION_PARENT
    ACTION_READ
    ACTION_SEEK
```

ARCHandler also uses ACTION_CHANGE_MODE for exclusive (ACCESS_WRITE) locks
on non-archive objects. If you want to use 2.0 packets (like
ACTION_COPY_DIR_FH, ACTION_EXAMINE_FH...) the underlying filesystem should
also support these.

When ARCHandler is trying to
                quit
                 but it receives a ACTION_DISK_CHANGE
before ARCHandler has been able to free all resources it will reactivate
itself. You can use this when you try to quit, but ARCHandler isn't able to
quit at that time, then you can reactivate ARCHandler with a 'DiskChange
ARC:'.

1.86 About the Author

  ARCHandler was written by Rafael D'Halleweyn.

If you have any questions, remarks, suggestions or bug reports please let
me know. You can contact me via EMail at:

                    Rafael.DHalleweyn@rug.ac.be

    [if you only have fido-access you should send a message to
    UUCP (2:29/777.0) and the first line of the message should
    read 'To: Rafael.DHalleweyn@rug.ac.be', the second line should
    be empty]

or you can use normal mail, send it to:

                    Rafael D'Halleweyn
                     Perckhoevelaan 17
                     B-2610 Antwerpen

                        BELGIUM

When you report a bug you should at least include the following
information: version of Kickstart and Workbench you are using, the volume
that the problem occured on, the filesystem that this volume is using.

ARCHandler was beta-tested by Nico François, Johan Billing, Per-Anders Josefsson, Stefan Zeiger, Tom De Voeght, Peter Stuer, Erik Bergen, Aeneas Verhé, Nicola Salmoria and Manuel Lemos.

The translations were made by Antonio J. Gomez (Spanish), Nicola Salmoria (Italian), Tom De Voeght (Dutch), Manuel Lemos (Portuguese), Magnus Holmgren and Roger Andersson (Swedish).

Tom De Voeght and Antonio J. Gomez helped me with the documentation (ie. this guide).

The excellent KingCON, by David Larsson, was used during the development.

Thanks guys. Do NOT try to send me the registration fee.

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